"REPRESENTATION WITHOUT SUBORDINATION":

COMMAND RELATIONSHIPS IN THE JOINT ENVIRONMENT

BY

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## APPROVAL

The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.


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The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

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# ABSTRACT

Joint and service doctrine clearly defines supporting, supported, and subordinate command relationships. Recent operations, however, exhibit confusion at the staff officer level regarding these command relationships. The confusion manifests itself in more than a simple misunderstanding of terminology, particularly when air forces are employed as part of a joint operation. Instead, joint staff officers mistake airpower's common role as a supporting force for one of subordination. The difference between these two relationships is significant, impacting authorities and responsibilities. The difference also proves to be critical when airpower is the decisive element or enabling force. This thesis asserts that confusion does indeed exist regarding supporting, supported, and subordinate command relationships. It further contends that a perception of airpower subordination to land forces exists. Finally, personal and professional relationships provide the most significant means by which commanders can reduce friction and confusion during joint operations.

CONTENTS

Chapter                Page

Illustrations

Figure

# Introduction

Military operations have received considerable media coverage over the last two decades. A reason for this coverage is the role technology has played in making weapons more accurate. As one author notes, the "increased reliance on air power [as] a consequence of technologies, most importantly guided munitions… [makes] it possible to attack new targets in new ways."[1] Using air-delivered precision weapons produced little collateral damage compared to previous bombing campaigns. The surgical application of weaponry airpower provides has given strategic leaders the means to limit warfare, tailor a message to a state or non-state actor (or its population), or strike formerly inaccessible targets.

Airpower-delivered precision weapons prove increasingly decisive to the outcome of modern warfare. Some commentators have suggested that there is a new, distinctively American way of waging war, led by airpower's coming "of age as a *decisive* element in combined-arms warfare" (emphasis in original).[2] Airpower combines speed, lethality, and reach, key characteristics of a cohesive joint force. Some scholars, such as Keith Shimko, argue that we have entered into a new era of warfare; America's military has reached a turning point or more specifically, a revolution in military affairs (RMA).

The idea of the US being in the middle of an RMA is a contentious one. Shimko acknowledges, "*If* we are in the midst of an RMA, it is one driven largely by advances in information gathering, communications, and targeting technologies" (emphasis added).[3] These three revolutionary advances appear to connect media footage of military actions with recent

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[1] Keith L. Shimko, *The Iraq Wars and America's Military Revolution*, (New York, NY: Cambridge University Press, 2010), 80.
[2] Keith L. Shimko, *The Iraq Wars and America's Military Revolution*, (New York, NY: Cambridge University Press, 2010), 80.
[3] Keith L. Shimko, *The Iraq Wars and America's Military Revolution*, (New York, NY: Cambridge University Press, 2010), 214.

operational results.  Undeniably, these technological advancements have proven to be force multipliers.  The disproportionate attention to these technological achievements, however, overshadows the struggle to organize and employ forces.

The media's depiction of modern US military forces wielding technologically superior weapons represents only one small part of the military's success.  The depiction and arguable successes of recent operations overlooks the friction occurring at the command and staff levels, particularly between Services.  The attention given to the command and control of forces, particularly relationships and the resulting cooperation (or lack thereof), is often overlooked.  As Michael Kometer states, it is "not the *way* people make decisions as much as the *interaction* of the many such decisions… [made in] the system" (emphasis in original).[4]

Interaction between the Services has increased over the past few decades, largely through the congressionally directed attention given joint operations after the passage of the Goldwater-Nichols Department of Defense Reorganization Act.  The Act directed the Services to develop joint processes, codify these processes in doctrine, and educate officers at joint military universities.  The intent and result have been a more lethal, effective, and efficient force.  A closer review of past operations and recent after action reports, however, indicate that confusion exists among commanders and their staffs regarding command relationships. Supported commanders appear to identify supporting as a term synonymous with subordinate.  The difference between the two terms is substantial, if not apparent.  As airpower is routinely supporting land and maritime forces, confusion often results, leading to tension between command elements and confusion over authorities and responsibilities. Confusion lowers effectiveness and efficiency.  The very nature of joint

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[4] Michael W. Kometer, *Command in Air War: Centralized versus Decentralized Control of Combat Airpower*, (Maxwell AFB, AL: Air University Press, 2007), 3.

operations should reduce confusion by forcing interactions between commanders and their staffs. Interactions and relationships, both personal and those prescribed by command arrangements, are the basis of joint operations. Joint and service publications define command relationships such as Operational Control, Tactical Control, and Administrative Control. Joint publications further define relationships as either supporting or supported. Joint doctrine, for example, identifies and discusses the "Fundamental principles that guide the employment of United States military forces in coordinated action toward a common objective and may include terms, tactics, techniques, and procedures."[5] By establishing command relationships in joint publications, the armed forces have doctrinally-aligned command structures to represent mutually agreed-upon relationships, which in turn increase the effectiveness of US fighting forces.

      Operationally, command relationships provide the basis for nearly every military exercise and operation. Officers learn these concepts in joint military education, receiving exposure to joint terminology while also studying joint planning and operations in detail. Despite this exposure and officers' own considerable experience, commanders and their staffs are still prone to confuse command relationships. For example, during the 2011 operation in Libya, Operation ODYSSEY DAWN (OOD), "planners and operators on all staffs lacked clear doctrinal understanding of the various command relationships."[6] Prior to OOD, the Marine Corps Center for Lessons Learned published a report in 2008 highlighting the "confusion [in Central Command—CENTCOM] over command relationships at various levels, including disagreement as to

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[5] Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 15 Mar 2014, 141.

[6] Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn: Command and Control,* (Washington DC: National Defense University Press, 2012), 147.

who was the 'supported commander.'"[7]  Airmen reportedly either misunderstood how this command relationship worked, or when they did understand "their supporting roles, [they] were reluctant to accept the relationship that the air component was tasked to perform in [a] ground-centric decentralized fight."[8]  Several Airmen remarked, "the Air Component doesn't work for the [joint task force—JTF] commanders in Iraq or Afghanistan, but only for the CENTCOM commander."[9]

If command relationships are explicitly and clearly identified in joint doctrine, why does this confusion still exist?  Is it a function of the contextually unique challenges of each campaign or have the intricacies of command and the relationships among commanders changed significantly with the advent and evolution of airpower?  The attention given to air operations since Operation DESERT STORM has renewed the debate and expanded confusion between the Services regarding supporting and supported roles.  This discussion has, in a limited sense, led to an even larger debate surrounding the utility of an independent Air Force.  If airpower is solely a supporting force, do we even need an independent Air Force?[10]

Airpower routinely assumes the supporting role in campaigns. Based on my particular experiences in the special operations world, land and maritime commanders and their staffs perceive air forces as working

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[7] Quoted in Maj Timothy B. Missler, "The Theater JFACC Construct: Creating Disunity of Command in the CENTCOM AOR," in Marine Corps Center for Lessons Learned (MCCLL), "2008 Executive Summary of AFMCTT Trip Report to the CENTCOM AOR," (accessed 9 February 2014), https://www.mccll.usmc.mil/ document_repository/Misc/AF%20Marine%20Trip%20Report-Final%2024%20Mar-CDR-3918.doc, 21:9.

[8] Quoted in Maj Timothy B. Missler, "The Theater JFACC Construct: Creating Disunity of Command in the CENTCOM AOR," in Marine Corps Center for Lessons Learned (MCCLL), "2008 Executive Summary of AFMCTT Trip Report to the CENTCOM AOR," (accessed 9 February 2014), https://www.mccll.usmc.mil/ document_repository/Misc/AF%20Marine%20Trip%20Report-Final%2024%20Mar-CDR-3918.doc, 22:5.

[9] Quoted in Maj Timothy B. Missler, "The Theater JFACC Construct: Creating Disunity of Command in the CENTCOM AOR," in Marine Corps Center for Lessons Learned (MCCLL), "2008 Executive Summary of AFMCTT Trip Report to the CENTCOM AOR," (accessed 9 February 2014), https://www.mccll.usmc.mil/ document_repository/Misc/AF%20Marine%20Trip%20Report-Final%2024%20Mar-CDR-3918.doc, 21:6.

[10] I do delve into this question in this thesis; the breadth of current debate and discussion, which is often more emotional or inflammatory than substantive, is wide and ongoing.  See for example Robert Farley, "America Does Not Need the Air Force," War is Boring blog, available online at https://medium.com/war-is-boring/ff4662469f95, accessed on 18 Dec 2013.

for them, as opposed to supporting them.  The idea that a supported force has the authority to order or direct a supporting force to accomplish a task or maneuver provides an apparent perception of subordination.  One potential source for this perception is confusion resulting from the key terms being used interchangeably or synonymously.  For example, a recent article published in *Joint Forces Quarterly* describes a support command relationship in the following way: a "support command authority relationship is established by a superior CDR between subordinate CDRs when one organization should aid, protect, complement, or sustain another force."[11]  Although this statement is doctrinally correct, its author introduces and mixes key words such as support, superior, and subordinate out of context.  The nuances associated with supporting and supported relationships are critical to understand in those cases where airpower (or conversely, land or maritime power) provides the decisive or enabling force to allow the supported element's execution of a mission.  The common misunderstandings between supporting and supported forces routinely challenge air commanders, who retain command authority and responsibility regardless of supporting or supported relationships.

The clear delineation and importance of command relationships is fundamental to commanders and their staffs to prevent unnecessary perceptions of subordination.  Command relationships have served as an essential component to the successful employment of armies, navies, and air forces ever since their respective introductions.  The complexity of these relationships varies by mission and purpose, requiring the establishment and clarification of authorities and responsibilities given to commanders and their assigned forces.  Joint Publication 1-02 defines command relationships as "the interrelated responsibilities between commanders, as well as the operational authority exercised by

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[11] George E. Katsos, "Command Relationships," *Joint Forces Quarterly* 63, 4th Quarter 2011: 154, Available online at www.ndu.edu/press/lib/images/jfq-63/JFQ63_153-155_Katsos.pdf, accessed 18 Dec 2013.

commanders in the chain of command; defined further as combatant command (command authority), operational control, tactical control, or support."[12]

Perceptions of risk and service specific culture and processes also influence interactions between commanders. Relationships, both personal and professional, further affect the degree of cooperation between Service components. Finally, doctrinal elements, such as tactics, techniques, and procedures (TTPs), influence methods of employment and associated levels of risk. The interaction and interdependence of these factors influence the employment of force, particularly airpower in the joint environment. When these factors fail to coincide, such as differing Service definitions, interpretation of key terms, or command relationships, friction can and often does occur.

Given historical debates and recent after action reports describing the confusion related to a doctrinal understanding of command relationships and the employment of forces, I ask why this confusion continues to exist. If joint doctrine clearly defines relationships and military officers learn in a joint university, what can further alleviate this confusion? If supporting denotes "working for" and therefore translates into "direct as desired," is it then synonymous with subordinate? Specifically honing in on airpower and the confusion regarding supporting and supported relationships, should air forces always be perceived as subordinate to land and maritime forces?

These key questions can be refined into three primary research hypotheses. First, there is confusion within the DOD regarding the meaning of supporting and supported command relationships. Second, there is a perception within the U.S. military that airpower is typically subordinate to land and maritime forces. Finally, relationships are expected to be the primary factor, followed by risk as the influential

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[12] Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms,* 15 Mar 2014, 46.

factor affecting the success or lack of success during operations.  I examine the validity of each of these hypotheses through the use of three case studies and a survey.

## Methodology and Structure

Previous studies have focused on either a theoretical approach to developing command relationships or historical case studies of relationships.  In this paper, I use both qualitative and quantitative methods of research to isolate and identify the key factor(s) influencing command relationships.  The three case studies provide the basis for comparative qualitative research.  Each of these case studies are examined through the lens of five key factors, introduced in Chapter Two.  The case studies span the use of airpower in joint campaigns from World War II (WWII) until today.  The evolution of doctrine, primarily joint doctrine, has provided today's officers with a better understanding of command relationships.  For example, "strategic air forces operated side by side with the theater commanders, all of whom took their guidance… [in the Pacific during WWII] from the JCS.  If the situation required, forces or resources were shifted from one theater to another, or air assets were temporarily placed at the disposal of a theater commander."[13]  Theater commanders received support from airpower. There were no transfers of authority as is common in today's support relationships.  The case studies examine this evolution from WWII to modern day operations to determine whether a correlation exists with the key factor(s) I identify in Chapter Two.  Each successive case study illustrates an increase in the span of control, as well as an increase in the role and effect of airpower on the outcome of the operation.  In addition, each case study draws heavily from primary source material including official reports, documents, and first-hand accounts.  A survey of intermediate developmental education personnel at Air University (see

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[13] Phillip S. Meilinger, "Unity of Command in the Pacific," *Joint Forces Quarterly* 56, 1st Quarter 2010: 156, available online at http://www.ndu.edu/press/lib/images/jfq-56/25.pdf, accessed 18 Dec 2013.

Chapter Six and Appendix A) provides a look at the command relationship issues using a quantitative methodology, to enhance this study's rigor. The survey asked respondents to assess current perceptions of joint operations, supporting and supported relationships, and airpower's subordination to land or maritime forces.

Chapter One introduces and defines common terminology regarding command arrangements and relationships. This review illustrates a potential disconnect between joint and Service doctrine. Understanding the differences in definitions between the Services illustrates how each interacts with others when specific command relationships are formed. Additionally, these differences establish an understanding of the challenges experienced by operational commanders, particularly in the realm of command authorities and responsibilities. These challenges are compounded by the necessity to produce efficient and effective operations, often under significant time and resource constraints.

Chapter Two further explores the differences identified in Chapter One. Identifying and explaining several factors related to personal and professional command relationships, such as risk, doctrine, weight of effort, and preponderance of force, prepares the reader for the common analytic framework for each of the case study chapters. This chapter also examines the differences between the Services in how, when, and in what environment or domain their officers' experience command prior to joint command.

Chapters Three, Four, and Five are case studies exploring successful or unsuccessful joint operations across different time periods and conditions. Chapter Three discusses the actions of Orde Wingate's Chindits, an allied special operations force employed in Burma and India during 1943-1944 supported by the 1st Air Commando Group. The Chindits are legendary among special operators for their feats but remain controversial historically as to their larger military significance and

8

impact on the theater.  The Chindits case study focuses on the application of force through the integration and development of command relationships.  Airpower's efficiency and effectiveness as an enabling force, instead of a subordinate one, offers a model of effective joint integration and effects to achieve outcomes.

Chapter Four explores Operation EAGLE CLAW, the failed attempt to rescue hostages from the US Embassy in Iran in 1980.  A rapidly formed, ad-hoc joint task force attempted to integrate non-standardized air and land forces to conduct this mission.  The focus of this chapter is on the command relationships, risk, and the disjointed actions of the overall joint task force.  The role of airpower is central to the discussion and related to the joint task force's command effectiveness and efficiency, or lack thereof.  In this study, the subordination of airpower and stripping of the air commander's authority negatively influenced the effectiveness and efficiency of the overall force, ultimately resulting in catastrophe and failure.

Chapter Five examines the recent actions in Libya, under the moniker Operation ODYSSEY DAWN.  This contemporary example illustrates the continuing struggle to develop effective and efficient command relationships.  Although considered unique due to the operational environment in which assets from one Geographic Combatant Commander (GCC) were employed by another GCC to provide effects in yet another GCC's area of responsibility (AOR), there are compelling arguments that this situation will become the norm rather than the exception in the future as US forces are rebalanced, reduced, and fiscally constrained.  This study reinforces the importance of proper command authorities, emphasizing the enabling quality of airpower as an equal and not subordinate force.

Chapter Six introduces a survey and its results as conducted at the Air Command and Staff College (ACSC) and School of Advanced Air and Space Studies (SAASS).  The survey assesses whether, and to what

9

degree, a perception of airpower is perceived to be subordinate to other Services during the conduct of joint operations. The survey also seeks to identify sources of confusion within the DOD regarding the meaning of supporting and supported command relationships. The Conclusion summarizes the findings of the thesis, comparing the survey results with a summary comparative analysis of the three presented case studies, and makes several recommendations based upon them.

Airpower can operate in a supported or supporting role. Confusion surrounding supported and supporting command relationships can decrease operational effectiveness and efficiency. Success in future operations requires clearly articulated and understood command relationships. Officers can and should receive adequate joint education, experience, and exposure to joint doctrine, in more meaningful ways before employing and integrating forces in a combat environment.
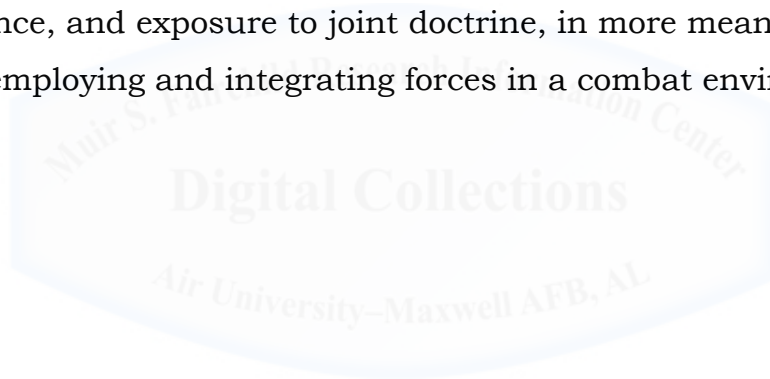
# Chapter 1

## The Joint Environment

*While "jointness" has become the short-hand description for [the] five-service partnership, with its own "color" —purple—there is another way to characterize the relationship among the Services…E pluribus unum—From many, one.*

The Armed Forces Officer, Jan 2006.

Airpower operates across a spectrum encompassing peace and wartime operations, creating and delivering tactical to strategic effects. In addition, airpower has the ability to operate independently from, or jointly with, other Services and coalition partners.  Because independent operations may require little to no cooperation, coordination, or integration, this thesis solely focuses on airpower as part of a joint operations team.  Most importantly, this thesis explores the command relationships established between the Services to make that joint team effective.

Joint operations require a unique balance of integration and interaction between the Services.  Balance is a critical component in the conduct of efficient and effective operations.  This chapter focuses specifically on command relationships, and in particular, the nature of supported and supporting command relationships.  As this chapter will demonstrate, joint and service doctrinal publications define command relationships in varying ways while others omit them altogether, creating a source of friction when moving from the theory of command into its practice in the field.  Identifying similarities and differences between doctrinal publications provides a starting place from which to explore the reported confusion surrounding command relationships.  Further, this approach provides an understanding of command relationships as they apply to operational commanders, particularly regarding command authorities and responsibilities.

**Joint and Service Doctrine**

The close integration and congruency between joint and service doctrine became a requirement more than a quarter century ago. The requirement was first stipulated following passage of the Goldwater-Nichols Department of Defense Reorganization Act of 1986. The Act stipulated that the Chairman of the Joint Chiefs of Staff (CJCS) would assume responsibility for the development of "doctrine for the joint employment of the armed forces...policies for the joint training of the armed forces... [and] policies for coordinating the military education and training of members of the armed forces."[1]

The capstone document, Joint Publication (JP) 1, Doctrine for the Armed Forces of the United States provides key concepts and definitions. The JP states, "The purpose of joint doctrine is to enhance the operational effectiveness of joint forces by providing fundamental principles that guide the employment of US military forces toward a common objective."[2] Joint doctrine resides in a series of joint publications, capturing a blend of service capabilities and tactics, techniques, and procedures (TTPs) into an overarching doctrine designed around the concept of joint interdependence. At its most basic, this concept links together individual service capabilities with the ideas of collective and complementary effects.[3] The focus on complementary effects draws from the capabilities and differences within each respective service. As the Armed Forces Officer publication notes, "*Different* does not mean *inferior*. It means *different*" (emphasis in original).[4] From this statement of the obvious the publication further clarifies that "[t]he

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[1] Goldwater-Nichols Department of Defense Reorganization Act of 1986, 1 October 1986, 10 USC 153 (a)(5)(a-c).

[2] Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, I-1.

[3] Department of Defense (DOD), *The Armed Forces Officer*, January 2006, 89.

[4] Department of Defense (DOD), *The Armed Forces Officer*, January 2006, 88.

challenge for the armed forces officer [is]…to be simultaneously a master of his or her own service and a knowledgeable partner of the other four."[5]

Differences between joint and service doctrine occasionally creates friction.  Even though joint doctrine is, "authoritative, [it] requires judgment in application."[6]  Occasionally, service and joint doctrine conflict.  When conflicts occur, joint doctrine takes precedence.[7] Because joint doctrine derives from Service doctrine, it is imperative that "[service doctrine] **must be consistent with joint doctrine**" (emphasis in original).[8]  Efforts to coordinate, connect together and deconflict service and joint doctrine are a continual process.  The Air Force, for example, continually evaluates and revises the Air Force Doctrine Document (AFDD) series in an attempt to ensure seamless integration and similarity with joint concepts, in many instances driving JPs into revision.

The development and expansion of joint doctrine complements the CJCS's role in managing joint training and education.  The CJCS stipulates the educational requirements necessary for officers to become joint qualified officers in both Intermediate Developmental Education (IDE) and Senior Developmental Education (SDE).  The first step towards joint qualification is joint education and training at a Service or joint school attended by a wide array of officers from other Services.[9]  The curriculum at such schools includes exposure to joint warfare concepts, doctrine, publications, and planning, as well as historical studies.

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[5] Department of Defense (DOD), *The Armed Forces Officer*, January 2006, 88.

[6] Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 15 Oct 2013, 83.

[7] When "conflicts arise between the contents of joint doctrine and the contents of Service or multi-Service doctrine, joint doctrine takes precedence." See Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, VI-3.

[8] Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, VI-3.

[9] Other JPME and PME options are available.  See CJCSI 1800.01D, Officer Professional Military Education Policy (OPMEP), Change 1, 15 September 2011, the CJCS Vision for Joint Officer Development, and Joint Professional Military Education Phase 1 (JPME 1) Equivalency List 2011 is available at: http://www.dtic.mil/doctrine/education/edu_ojpme.htm.

Additionally, faculty at a specific Service school provide the future joint qualified officer with exposure to a broader array of Service-specific doctrine, literature, and publications. Given such a broad education with an emphasis on joint concepts, officers should graduate with an understanding of how forces are presented to and employed by a Joint Force Commander during joint operations. Operational exercises outside of the Joint Professional Military Education (JPME) system allow officers to apply the concepts learned in joint doctrine, education, and training.

Despite the clarity of both Service and Joint doctrine, as well as the heavy investment in joint training and education, confusion nevertheless still exists between commanders and their staffs regarding the command and control of forces. A fundamental question this thesis tackles is: why are command relationships, as defined in joint publications, still misunderstood? A first place to look for answers is in the definitions of core terms in Service and Joint doctrine. Service doctrine normally references joint series publications as the definitional source for terminology. However, several joint terms are missing from service publications.

Perhaps the most striking example of lapses in adequate definition is the definition of "support" and "supporting" in the context of commanders. Both of these command concepts are familiar in the joint environment yet neither are defined or even referenced in Army doctrinal publications. Navy and Marine doctrine is equally silent on the distinction between these concepts. Both Services refer instead to joint concepts in their respective JP series documents. This type of omission is an apparent inconsistency between doctrinal publications. It is possible that confusion and misunderstanding may result from this omission.

### Supported Relationships

In order to better understand the distinction between supported and supporting, it is necessary to begin at the root of the problem—the

definition of "support."  The Merriam-Webster dictionary defines support as "assist, help: to act with, to provide a basis for the existence or subsistence of, to hold up or serve as a foundation or prop for."[10]  This definition closely matches the Joint doctrine definition of support as "1. The action of a force that aids, protects, complements, or sustains another force in accordance with a directive requiring such action. 2. A unit which helps another unit in battle. 3. An element of a command which assists, protects, or supplies other forces in combat."[11]  At its essence, the definition of support in Joint doctrine describes a unit that helps another unit.

Logically this definition leads to the inference that a supporting unit assists a supported unit.  Joint Publication 1-02 and Army doctrine and training publication (ATTP) 4-10, however, provide a definition of a supported unit "As related to contracted support, a support unit is the organization that is the recipient, but not necessarily the requester of, contractor-provided support."[12]  Searching further to find an agreeable definition, one can turn to Army Field Manual (FM) 1-02's definition of a support force, but find the definition referring to yet another concept: "That force in a breaching operation whose mission is to eliminate enemy interference with the breach through suppressive, direct, and indirect fires. The support force is one of the three breach organizations used in breaching operations."[13]  A support operation provides still another context: "Operations that employ Army forces to assist civil authorities, foreign or domestic, as they prepare for or respond to crises and relieve suffering."[14]  The lack of agreement creates confusion.  A support force is

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[10] Merriam Webster, "Support," http://www.merriam-webster.com/dictionary/support (accessed 31 Dec 2013).

[11] Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 15 Mar 2014, 253.

[12] Army Tactics, Techniques, and Procedures (ATTP) 4-10, *Operational Contract Support Tactics, Techniques, and Procedures*, 20 Jun 2011, 1-3.

[13] Field Manual (FM) 1-02, Change 1, *Operational Terms and Graphics*, Feb 2010, 1-179.

[14] Field Manual (FM) 1-02, Change 1, *Operational Terms and Graphics*, Feb 2010, 1-179.

not the same as a supported force.  Army personnel may be cognizant of the difference in support definitions within the contextual Army usage, however, fail to understand the joint communities interpretation.  Likewise, non-Army officers may "talk past" their Army peers when discussing support arrangements.

The joint community has provided a definition of the supported commander.  Both Joint and Air Force publications provide the same definition of supported commander.  This command arrangement is "1. The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. 2. In the context of joint operation planning, the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. 3. In the context of a support command relationship, the commander who receives assistance from another commander's force or capabilities, and who is responsible for ensuring that the supporting commander understands the assistance required."[15]  This definition is clearly articulated and in line with Merriam-Webster's definition.  Hence, there is nothing unusual or militarily different in understanding the support command relationship from a joint doctrinal perspective.  However, Army publications make no mention of the supported commander role in their service doctrine.  Returning to the JP series, JP 3-31, Command and Control for Joint Land Operations states "The JFLCC is the supported commander within the land AO designated by the JFC. Within the designated AO, the JFLCC has the authority to designate target priority, effects, and timing of fires in order to integrate and synchronize maneuver, fires, and interdiction."[16]  Additionally, "The JFLCC will be the supported commander for operations conducted within the AO when

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[15] Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 15 Mar 2014, 253.
[16] Joint Publication (JP) 3-31, *Command and Control for Joint Land Operations*, 24 Feb 2014, x.

designated by the JFC and may be the supporting commander for some functions."[17]  Although Army publications omit these relationships, focusing on the tactical and operational maneuver of land forces, joint publications recognize and adhere to joint doctrine and terminology.

The Army's use of various terminologies relating to support is for good cause.  The lack of definitional incorporation of support force, support operation, and support unit into joint publications is a glaring omission of terminologies that may help clarify the different uses of a key word, support.  The inclusion of these terms would be especially helpful when recognizing the use of the word support as a qualifier to other ideas such as force, operation, and unit used in tactical Army doctrine and publications.  Conversely, the omission of the supported commander relationship within Army doctrine may lead to confusion and misunderstanding among officers working in a joint environment when they encounter an unfamiliar command relationship.

### Supporting Relationships

Similar to the case regarding supported relationships, Army FM 1-02 defines supporting forces whereas joint publications omit the definition.  Supporting forces are those "Forces stationed in or to be deployed to an operational area to provide support for the execution of an operation order. Combatant command (command authority) of supporting forces is not passed to the supported commander."[18]  While joint publications omit this definition, they provide a definition for a supporting plan, an omission found in Army publications.  A supporting plan is "An operation plan prepared by a supporting commander, a subordinate commander, or an agency to satisfy the requests or requirements of the supported commander's plan."[19]

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[17] Joint Publication (JP) 3-31, *Command and Control for Joint Land Operations*, 24 Feb 2014, II-14.
[18] Field Manual (FM) 1-02, Change 1, *Operational Terms and Graphics*, Feb 2010, 1-179.
[19] Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 15 Mar 2014, 254.

Yet again, joint publications provide a definition for supporting commander whereas Army publications do not. A supporting commander is "1. A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. 2. In the context of a support command relationship, the commander who aids, protects, complements, or sustains another commander's force, and who is responsible for providing the assistance required by the supported commander."[20] Given the previously presented definition of support from Merriam-Webster and supported commander from joint publications, this definition of supporting appears to follow suit in clarity and conformity. It is important to note that a supporting commander provides aids, protects, complements, or sustains, but is not subordinate to the supported commander.

Subordination changes the dynamics of authority and responsibility. Merriam-Webster defines subordinate as "1) placed in or occupying a lower class, rank, or position: inferior. 2) submissive to or controlled by authority."[21] Joint doctrine is alone in identifying a subordinate command as "A command consisting of the commander and all those individuals, units, detachments, organizations, or installations that have been placed under the command by the authority establishing the subordinate command."[22] A subordinate commander, for example, may not retain execution or waiver authority over forces under his or her command. Subordinate command relationships are common throughout Major Commands (MAJCOM's) and Joint Force Commands.[23]

Air Force Doctrine Document 1 provides a definition of a subordinate unified commander, as taken directly from JP 1. This

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[20] Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 15 Mar 2014, 253.
[21] http://www.merriam-webster.com/dictionary/subordinate (accessed 31 Dec 2013)
[22] Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 15 Mar 2014, 252.
[23] For an example of a MAJCOM's subordinate commands, see AFRICOMs website at: http://www.africom.mil/about-the-command/subordinate-commands (accessed 30 Dec 2013).

inclusion is the closest of the Services to incorporating subordinate command relationships within service doctrine.  Army FM 1-02 provides a definition for subordinates' initiative: "The assumption of responsibility for deciding and initiating independent actions when the concept of operations or order no longer applies or when an unanticipated opportunity leading to the accomplishment of the commander's intent presents itself."[24]  This definition found only in Army publications.  Yet the concept does not refer to the command relationship.

The majority of terminology and definitions found in Army publications refer to the tactical and operational level of war.  As the name suggests, Field Manuals are tactical in nature.  The Air Force equivalent is the Air Force Tactics, Techniques, and Procedures (AFTTP) series publications.  The Army ATTP series provides operational level doctrine, yet focuses on Army maneuver.  The Air Force AFDD series is also operational, yet borders on strategic.  This is primarily a function of airpowers inherent ability to simultaneously influence and provide effects at the strategic, operational, and tactical levels of war.  As such, the AFDD series of publications regularly influence Joint publications.

**Assigning Command Relationships**

Joint doctrine provides reference to the common command relationships employed by our armed services.  However, the ultimate authority resides with the President.  It is "The President, through the Unified Command Plan (UCP), [who] establishes [combatant commanders] CCMDs. Commanders of unified CCMDs may establish subordinate unified commands when so authorized by SecDef."[25]  Joint Force Commanders (JFCs) have combatant command (COCOM) authority, inherently including operational control (OPCON) and tactical control (TACON) of forces.  Because "Command relationships between Service and/or functional component commands are established by the

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[24] Field Manual (FM) 1-02, Change 1, *Operational Terms and Graphics*, Feb 2010, 1-178.
[25] Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, II-9.

JFC,"[26] the JFC can delegate OPCON and TACON to lower echelon commanders. "However, supported/supporting relationships may also be used to provide the necessary authority and basis for interdependence in the operational environment."[27] A support relationship "is usually used when neither OPCON nor TACON is appropriate."[28] The relationship still demands authority. Often misunderstood, "Support is a command authority…. The support command relationship is, by design, a somewhat vague but very flexible arrangement. The establishing authority (the common JFC) is responsible for ensuring that both the supported commander and supporting commanders understand the degree of authority that the supported commander is granted."[29]

When employing supported/supporting command relationships it is critical that the "authority, if any, of the supporting commander to modify the supporting effort in the event of exceptional opportunity or an emergency; and the degree of authority granted to the supported commander over the supporting effort"[30] be established and understood.

The "degree of authority" is critical to understanding a command relationship. However, clearly articulating this point is often overlooked. A lack of clearly defined authorities and expectations causes confusion between commanders and their staffs. When commanders and staffs misunderstand or are unaware of the "degree of authority" between units, friction develops, which in turn leads to inefficiency and ineffectiveness. In the extreme, failure may occur. The inherent flexibility of a support relationship then breaks down. When clearly authorities are clearly understood, flexibility becomes a force multiplier.

The flexibility of a support relationship manifests itself in one of four categories: general support, mutual support, direct support, and

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[26] Joint Publication (JP) 3-31, *Command and Control for Joint Land Operations*, 24 Feb 2014, II-17.
[27] Joint Publication (JP) 3-31, *Command and Control for Joint Land Operations*, 24 Feb 2014, II-17.
[28] Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, 14 Oct 2011, 140.
[29] Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, V-8.
[30] Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, V-8-V-9.

close support.  The most common is general and direct support.  This paper references direct support, however, attempts to remain at the broad supporting/supported level.  Figure 1 summarizes the four categories of support.
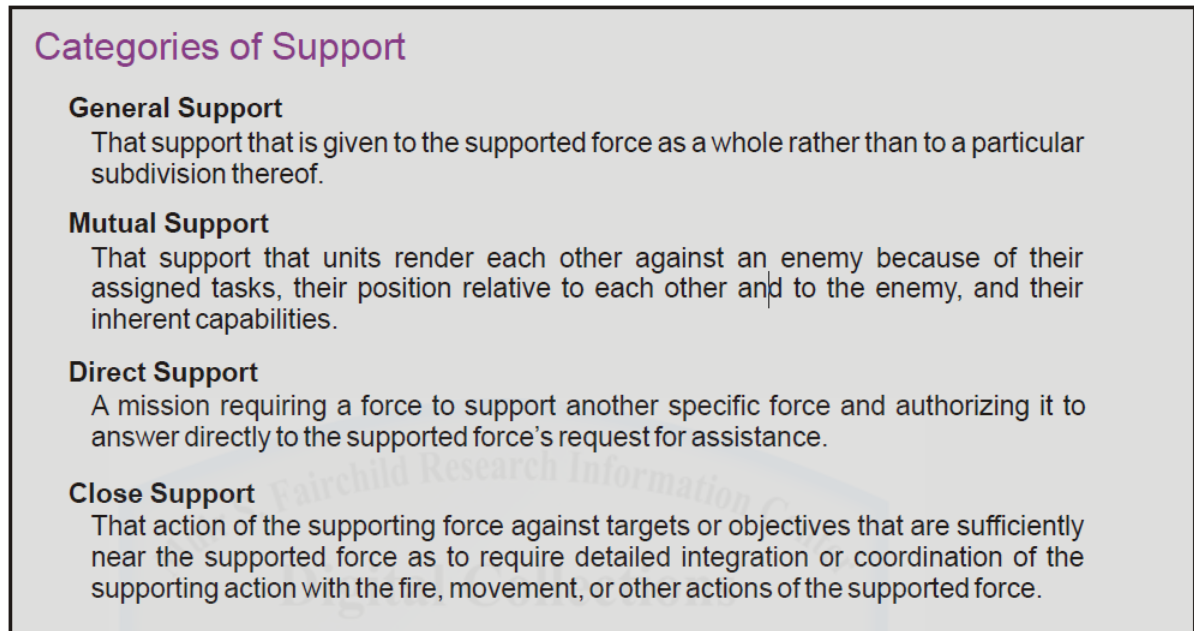


**Figure 1: Categories of Support**
*Source:  Joint Publication 1, Doctrine for the Armed Forces of the United States*

Under normal arrangements, "the supported commander will have the authority to exercise general direction of the supporting effort. General direction includes the designation and prioritization of targets or objectives, timing and duration of the supporting action, and other instructions necessary for coordination and efficiency."[31]  The supporting commander retains the authority and responsibility to determine "the forces, tactics, methods, procedures, and communications to be employed in providing this support. The supporting commander will advise and coordinate with the supported commander on matters concerning the employment and limitations (e.g., sustainment) of such

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[31] Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, V-9.

support, assist in planning for the integration of such support into the supported commander's effort as a whole, and ensure that support requirements are appropriately communicated within the supporting commander's organization."[32]

Examples abound of normal support relationships. AFDD 1 describes, "the most common example of this between CCDRs is seen when a functional CCDR (e.g., Commander, USTRANSCOM) is established by the SecDeF as a supporting commander and a geographic CCDR (e.g., Commander, USCENTCOM) is established as the supported commander."[33] Support relationships require a clear understanding between commanders regarding purpose, authorities, and responsibilities. AFDD 1 explains, "An establishing directive normally is issued to specify the purpose of the support relationship, the effect desired, and the scope of the action to be taken. It also should include: the forces and resources allocated to the supporting effort; the time, place, level, and duration of the supporting effort; the relative priority of the supporting effort; the authority, if any, of the supporting commander to modify the supporting effort in the event of exceptional opportunity or an emergency; and the degree of authority granted to the supported commander over the supporting effort."[34]

Another critical component of support relationships is that "A supported relationship does not include authority to position supporting units but does include authority to direct missions or objectives for those units."[35] An example of this "would be a JFACC's request for a supporting commander, Army Forces or joint force land component commander to provide joint fire support to engage a time sensitive target (TST). It is up to the supporting commander to choose whether to use an

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[32] Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 Mar 2013, V-9.

[33] Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, 14 Oct 2011, 140.

[34] Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, 14 Oct 2011, 140.

[35] Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, 14 Oct 2011, 141.

Army Tactical Missile System, long range artillery, or some other weapon system as long as the TST is engaged with the effect and timing as directed by the supported commander."[36]

Joint and Service doctrine clearly define command relationships, including supported and supporting when they are included in Service publications. Air Force doctrine closely aligns itself with Joint doctrine, perhaps given airpowers unique ability to operate simultaneously at the strategic, operational, and tactical level. Army, Navy, and Marine Corp doctrine focuses on tactical operations while referring to joint publications as necessary. Relying on "self-study" or exposure through joint PME and "real-world" operations delays an officers understanding of joint concepts, particularly command relationships. Integration of command relationships in all Service doctrine would decrease operational friction and confusion, thereby increasing effectiveness and efficiency to ensure mission success.

## Conclusion

This chapter has introduced key concepts relating to command relationships. JFCs assign command relationships as required or necessary, while doctrine defines and describes those relationships. This paper focuses on the supported, supporting, and subordinate command relationships, while reaching further into the four categories of support relationships by exception. Although Army doctrine does not include a definition for supported or supporting commanders, joint publications referring to land operations do. Confusion may exist among officers that have not received exposure to the joint environment or education system. Further, the sheer number of publications, both service and joint, makes it difficult to decipher terminology and nuances between terms that are not standardized or commonly used. The inclusion of these terms in

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[36] Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, 14 Oct 2011, 141.

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respective joint and service publications would help clarify the multiple uses of the word support in its various contexts.

Officers of all Services attend JPME courses as they develop and mature in their careers, usually receiving exposure to joint doctrine at the field grade level. Officers that serve on joint staffs, work on operational service staffs, or in close coordination with another service obtain exposure to joint concepts and operations. Joint experience typically occurs after attending a JPME course, although younger officers may find exposure to these jobs. Further, the assignment of supported and supporting commanders to campaigns and operations in both peacetime and war leads one to expect some familiarity with each respective command relationship. Here again the inclusion of terminology across joint and service doctrine would provide a basis for educational advancement during JPME courses. Increasing the attention given to the study of command relationships, the differences between them, and how they operationally function, would reduce confusion surrounding these relationships when serving on a joint staff.

The integration of forces and the support they provide to one another becomes more effective and efficient when commanders and their staffs clearly understand directed authorities and responsibilities, or "degrees of authority." This paper uses three case studies to examine and emphasize the importance of "degree of authority," how it is easily confused, and the operational/strategic results of both clearly articulated and misunderstood relationships.

Understanding doctrine and the key concepts related to command relationships is critical to the success of military operations. However, successful command relationships require more than an understanding of doctrinal definitions. Before exploring the case studies and dissecting the "degrees of authority" between commanders, it is important to understand the factors that influence command relationships.

**Chapter 2**

**Factors Influencing Command Relationships**

*Mutual support is the fundamental basis upon which the air-surface relationship is founded.*

AFM 1-3, Theater Air Operations, 1953.

This chapter explores five key factors that influence command relationships. These factors appear consistently, individually or collectively, as leaders reflect on their successes and failures in biographies and autobiographies, in after action reports, and throughout historical works on air campaigns. These factors are: relationships, including personal and professional aspects, risk, doctrine, weight of effort, and preponderance of force. Each of the five factors plays an influential role on the conduct, development, and maintenance of command relationships. They also appear at first glance to directly correlate with the outcome of operations, be it success or failure. Before exploring these factors, this chapter will assess some of the key differences of command between the Services. Command in each of the Services is influenced by their unique cultures and operating environments. The purpose of this assessment is to understand how independent Service perceptions are formed, as well as when and how they interact in the formation and employment of joint forces.

Unlike land or maritime forces, airpower operates across multiple environments. In addition, airpower has a unique capability to provide simultaneous effects across the strategic, operational, and tactical levels of war. Because of this inherent flexibility and adaptability, airpower can quickly change roles and be re-tasked in-flight. The Joint Force Commander's (JFC's) requirements and desired effects may make "the air campaign… the primary or supporting effort in a theater."[1] This is

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[1] Quoted in Military Airpower: A Revised Digest of Airpower Opinions and Thoughts, (Maxwell AFB, AL: Air University Press, 2007), 38.

certainly one important difference between commanding and controlling airpower compared to the other Services.  The operating environment is only one contributing element to Service culture.  The environment blends with unique Service cultures and influences the early experiences and perceptions of its officer corps.

## Differences of Command

The environment in which each Service operates is different.  The soldier reigns over land warfare where the epitome of battle results from collective efforts of will to overcome the enemy.  With the exception of naval aviation, the US Navy (USN) shares a predominately one dimensional view of warfare.  Conversely, air forces operate across, through, and within multiple domains.  For the Army and Marines, the man operates and employs machines.  The Air Force and Navy place more emphasis on equipment and weapon systems.  The two Services count and group weapon systems by numbers and class of aircraft or ships.  For the Army and the Marine Corps, the soldier or rifleman is the primary weapon system.  This first difference of what constitutes the primary warfighter, or unit of combat, influences each Service's perception and cognition of war in their respective domains.[2]

Differences between the Services are not only observed in the operating environments.  The cultural environment plays an important part in developing officers.[3]  The two are inseparable; they intertwine and influence each another in very subtle ways.  In order to better understand Service culture writ large, it is important to explore a few key cultural aspects independently of the operating environment.  While

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[2] The adage, "the Navy and Air Force man the equipment, the Army equips the man," illustrates this point.

[3] A seminal work on Service culture is Carl Builder's *The Masks of War*.  In his book, Builder argues that each Service has an independent culture, which influences their actions. Builder, *The Masks of War: American Military Styles in Strategy and Analysis*, (Baltimore, MD: Johns Hopkins University Press, 1989). Although his work was written before passage of the Goldwater-Nichols Act in 1986, officers and scholars still find it useful.  For example, Lieutenant Colonel Joyce DiMarco has found Builder's work still relevant for the twenty-first century.  See Joyce P. DiMarco, *Service Culture Effects on Joint Operations: The Masks of War Unveiled*, (Ft Leavenworth, KS: School of Advanced Military Studies, 2004).

several scholarly studies argue for or against the value of Service differences, I focus on the ability of these differences to influence command relationships.[4]

One of the most readily apparent cultural differences centers on the role of technology. While this aspect is germane to each Service's methods, means, and ways in which they employ their units of combat, and was discussed above, there are additional elements that are important to note. Technology influences the Air Force's, and largely the Navy's, mission. For the Air Force, the concepts of "Global Reach" and "air and space superiority" require technological superiority. As the youngest of the Armed Services, the Air Force not only embraces but also relies upon technology to gain and maintain air superiority over any potential opponent as a condition for continued exploitation in the air domain. Battles of air superiority are measured by precision, speed, and lethality of machines, not people. Yet some argue that technology is a sharp two-edged sword. Critics from other Services and elsewhere accuse the Air Force of risk aversion because of the perceived unwillingness of senior leaders to employ technologically advanced aircraft, such as the F-22 fighter, in combat.[5]

The Army and Marine Corps integrate technology into their respective Services but with the same focus, or to the same degree, as the Air Force. Technology in these Services is seen primarily an enhancement of, and not a replacement for the soldier. Equipment and

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[4] I focus on the differences in Service culture. There are several commonalities, notably trust and loyalty. These two traits occur in each Service, regardless of the environment. See Michael W. Taylor, *Service Culture and the Joint Force*, (Carlisle Barracks, PA: U.S. Army War College, 2011), 7.

[5] Joyce P. DiMarco, *Service Culture Effects on Joint Operations: The Masks of War Unveiled*, (Ft Leavenworth, KS: School of Advanced Military Studies, 2004) 59. See critiques on the F-22 and speculation on why it has not been deployed in combat, see Lee Ferran, Megan Chuchmach, and Mark Schone,"Final F-22 Fighter Delivered, McCain Says $79B Jets Still Have No Mission," ABC News.com (3 May 2012), available online at http://abcnews.go.com/Blotter/final-22-fighter-delivered-sen-john-mccain-79b/story?id=16270127, accessed 5 May 2014 and "So Why Did We Buy the F22," Opfor.com (28 March 2011), available online at http://op-for.com/2011/03/so-why-did-we-buy-the-f22.html, accessed 5 May 2014.

technology serves to assist soldiers and marines in closing and defeating enemy soldiers and controlling territory.  Similar to the Navy, these two Services share a rich and deep history and culture based upon a warrior ethos shared by all soldiers and marines, regardless of operational specialty or assigned weapon system.  For example, "every Marine a rifleman, is the cornerstone of the organizational culture of the Marine Corps."[6]  Officers also learn about great moments in their unit's and Service's history and are shaped early in their careers by these cultural differences.  The cultural and operational environment also influences the organizational construct of each Service.  This is readily apparent in the timing of an officer's command experience.

Army officers experience command early in their career compared to their Air Force or Navy counterparts.[7]  Young Army lieutenants and captains command at the squad, platoon, and company level.  As a company-grade officer (CGO), the Army officer becomes a tactical expert in his/her military occupational specialty (MOS).  The focus within their speciality centers on the tactical employment of army forces.  Few Army officers have experience in the joint environment, read joint publications, or attend joint education until the mid-point of their career.  At the field-grade officer (FGO) level, an Army officer attends joint education, interacts with fellow Service peers, reads joint publications, and typically serves on a joint staff or command at the battalion level where joint interaction occurs.

In comparison, Navy and Air Force officers experience much command later in their career.  The apex of command in these Services is command of a ship or squadron.  This level typically occurs at the FGO rank after receiving joint education.  In many instances, Air Force or

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[6] Michael W. Taylor, *Service Culture and the Joint Force*, (Carlisle Barracks, PA: U.S. Army War College, 2011), 12.

[7] The majority of Marine officers fall into the same category as Army officer development.  For the purposes of this thesis, I include them in one category.

Navy commanders have also served on a joint staff or experienced joint exercises or operations. Unlike their Army peers, however, airpower practitioners consistently operate across the spectrum of warfare (strategic-operational-tactical). The nature of airpower requires study early in an officer's career of tactical and strategic concepts and doctrine. The Airman is very likely to receive exposure to joint doctrine and publications much early than their Army counterpart.

The difference in command is rooted in each Service's specific culture, function, and purpose. The confluence of these differences can manifest itself as tension or friction during and after joint operations.[8] If the tension consists of general discord or disagreement, this can lead to stagnation of thought or stalemate. Conversely, creative tension in the joint environment, especially during the planning, execution, and after-action review process, ensures that the Armed Services individually and collectively do not become to doctrinaire in their operations.[9] The lens against stagnant approaches to warfare when relationships are formed based upon trust and respect.

Operating environments and Service cultures influence each Service's perspective of the battlefield. As the brief preceding discussion suggests, the experiences of command and joint operations occur at different points in each officer's career, influencing how they view joint operations. The passage of the Goldwater-Nichols Act in 1986, which mandated jointness between the Services, forced them to integrate and develop joint processes and doctrine. In addition, the Act also ensured that promotion to senior levels of command and rank requires joint

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[8] Historians still continue to debate what wrong and why during Operation Anaconda in Afghanistan in 2002. Books written about the event have focused considerably on the command relationships, or lack thereof, between the various component commanders in the weeks leading up to operation. For various perspectives and arguments see Lester Grau and Dodge Billingsley, *Operation Anaconda: America's First Major Battle in Afghanistan* (Lawrence, KS: University Press of Kansas, 2011); Sean Naylor, *Not a Good Day to Die: The Untold Story of Operation Anaconda* (New York: Berkley Trade, 2006); and US Air Force, AF/XOL, *Operation Anaconda: An Air Power Perspective* (Washington, DC: Headquarters, USAF, 2005).

[9] Creative tension also results from disagreement or discord. The difference is that it results in better ideas or solutions. See http://dictionary.reference.com/browse/creative+tension.

education and experience.  Unfortunately, not all officers obtain the
education or experience, or have the desire to do so.[10]

## The Five Factors

Several factors influence command relationships in war.  Time and
space constraints do not permit a lengthy exploration of this subject.
There is already a rich literature on successful and unsuccessful
command relationships.  For the purpose of this thesis, I compress this
literature of works on strategy and theory, after action reports and
lessons learned, doctrine and standard operating procedures (SOPs),
personal experiences, and historical case studies through deductive
analysis into five primary factors that appear to influence command
relationships.[11]  Rather than spending much time and space explaining
how I arrived at these factors, I look instead at each in turn in depth that
appear in practice to ease or complicate command relationships during
operations.

### Relationships

The military is an organization based on a hierarchical structure
with a rigid chain of command.  Operational and tactical command
relationships are directed and clearly defined in Joint Publications, if not
confused operationally, as Chapter One suggests.  In this paper, I break
out the personal and professional relationships from directed command

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[10] Downsizing and budget constraints increase the necessity of cooperation and likelihood of joint operations.  It is not realistic for any Service to plan and operate independently.  DiMarco expands on this and argues for joint experience sooner than what currently happens in an officer's career.  Additionally, joint experience should be more than a "block-filler" in an officer's career checklist for promotion. See Joyce P. DiMarco, *Service Culture Effects on Joint Operations: The Masks of War Unveiled*, (Ft Leavenworth, KS: School of Advanced Military Studies, 2004) 62.

[11] Over the course of the year at SAASS, a student is exposed to more than 100 books on subjects related to the theory and practice of airpower.  I have identified or deduced these factors over the course of the year from a wide range of works.  Time and space precludes an exhaustive survey, but representative works on airpower, in which the author reflects upon or analyses command relationships include George C. Kenny, *General Kenney Reports: A Personal History of the Pacific War* (Washington, DC: Office of Air Force History, 1987), especially pp. 3-57 on Kenney's relationship with General Douglas MacArthur. For biographical works, see David Mets, *Master of Airpower: General Carl A. Spaatz* (Novato, CA: Presidio, 1988); Thomas Hughes, *Over Lord: General Pete Quesada and the Triumph of Tactical Air Power in World War II* (New York: Free Press, 1995); and, Thomas Griffith, Jr., *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific* (Lawrence, KS: University of Kansas Press, 1998).

relationships.  The personal and professional levels are where interaction occurs and is developed, as opposed to the directed ones.

Commanders set the tone of the working environment for their staffs.  Clear direction and guidance allow the staff to operate at a higher level of efficiency and effectiveness as opposed to staffs that receive little to no guidance.  Interaction between staffs, particularly between the staffs of different services and Geographic Combatant Commands (GCC's), is greatly enhanced when guidance is clearly articulated. Interaction can and should occur beyond US staffs.  One of the GCC's staff roles is to build partnerships with host and regional militaries.[12] Developing relationships between commanders and staffs pays dividends during crises and contingencies.

Personal and professional relationships between commanders greatly increase the efficiency and effectiveness of operations.  The idea is both logical and deceptively simple: good working relationships foster cooperation, effectiveness, problem solving, sharing, etc.  Failure to develop positive or good working relationships between commanders creates additional friction and stress on subordinates and staff members.[13] The outcome usually results in less effective and efficient missions, if not operational or strategic failure.[14]  In many instances, the failure to develop a congenial, if not positive working relationship proves to be as fatal to success as a hostile relationship.  Staffs, GCCs, and foreign militaries benefit from established relationships, forging the integration and expectations of each other's units.

A modern example, Operation ANACONDA, illustrates the importance and relevance of relationships in the context of contemporary

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[12] Michael Spirtas, Thomas-Durell Young, and S. Rebecca Zimmerman, *What it Takes: Air Force Command of Joint Operations*, (Santa Monica, CA: Rand Corporation, 2009), 6-7.

[13] Some command structures have been built on the model of controlling information and promoting competition between commanders, most especially that of Nazi Germany.  For details see Geoffrey Megargee, *Inside Hitler's Command* (Lawrence, KS: University of Kansas Press, 2006).

[14] This idea is one of the central themes of Robin Higham and Stephen Harris, ed., *Why Air Forces Fail: The Anatomy of Defeat* (Lexington, KY: University of Kentucky Press, 2006).

commanders.[15]  ANACONDA was the 17-day operation in the Khowst-Gardez region, one of Afghanistan's most dangerous, contested, and mountainous areas.  This operation has emerged as one of the most controversial actions of Operation ENDURING FREEDOM (OEF).[16]  Initial planning by ground force component staff either circumvented or neglected Central Command Air Forces (CENTAF) and Combined Air Operations Center (CAOC) planners.  The reasons for this remain unclear but the separation of headquarters, communications failures, as well as the rapid evolution and expansion of the planning process could be contributing factors.  During the first month of OEF, the US Central Command (USCENTCOM) commander, General Tommy Franks, specified targets and directed air allocation for air support.  The result was inefficient use of airpower as aircraft "burned holes in the sky" until ground forces identified targets to strike.[17]

General T. Michael Moseley assumed command of Ninth Air Force one month prior to the start of ANACONDA.  Moseley was not only the Ninth Air Force commander; he had responsibilities as the air component commander (CENTAF) to CENTCOM.  Moseley inherited a command and control structure that operated exceptionally well against fleeting Taliban

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[15] The study of Operation ANACONDA reveals several lessons, on multiple levels.  One of the key lessons revolves around the violation of unity of command.  The lack of joint planning and integration has led to numerous reports and studies.  See Lester Grau and Dodge Billingsley, *Operation Anaconda: America's First Major Battle in Afghanistan* (Lawrence, KS: University Press of Kansas, 2011); Sean Naylor, *Not a Good Day to Die: The Untold Story of Operation Anaconda* (New York: Berkley Trade, 2006); and US Air Force, AF/XOL, *Operation Anaconda: An Air Power Perspective* (Washington, DC: Headquarters, USAF, 2005).

[16] Operation ANACONDA was planned for three days, erupted into a seven day battle, and officially terminated after 17 days.  The operation, lasting from 2-18 March 2002, was deemed a success.  However, the operation "fell short of its objective of encircling and preventing the escape of remaining Taliban and Al Qaeda forces."  See Richard Kugler, *Operation Anaconda in Afghanistan. A Case Study of Adaptation in Battle*, (Washington DC: National Defense University, Center for Technology and National Security Policy, 2007), 1.  And James D. Kiras, "T. Michael Moseley: Air Power Warrior," in *Air Commanders*, ed. John Andreas Olsen (Washington DC: Potomac Press, 2013), 401.

[17] General Wald, the Ninth Air Force commander, was accused of "placing air force priorities above those of the joint team."  Gen Franks had indirectly ordered airpower's allocation and priority to ANACONDA, resulting in the inefficient use of airpower waiting for close air support (CAS) missions. James D. Kiras, "T. Michael Moseley: Air Power Warrior," in *Air Commanders*, ed. John Andreas Olsen (Washington DC: Potomac Press, 2013), 403.

and Al Qaeda targets throughout Afghanistan. The lack of credibly-manned forward headquarters integrated with the CAOC caused "needless confusion throughout the battle's early phases."[18] He had two relationships challenges to address: internal relationships within his component with subordinate officers, and external relationships with his Combined Forces Land Component Commander (CFLCC) and Special Operations Forces (SOF) component counterparts.

To overcome relationship challenges within his command, Moseley focused making subordinates responsible and accountable. Moseley provided direction and delegated responsibility to his commanders, and in turn held them accountable for their unit's behavior, discipline, and performance. Subordinates were encouraged to identify "unnecessary risk and [sought] solutions to minimize it."[19] Mosley also promoted ideas and innovation through his support to obtain approval to implement his Airmen's ideas, if he did not have the authority to authorize them. A notable example is his advocacy for the kill box system, which became of critical importance to close air support (CAS) coordination in the relatively small geographic area in which ANACONDA took place.[20] The kill box system contributed to the effective deconfliction of fires in a confined space, particularly given the employment of CAS by aircraft that were never designed as CAS platforms.[21]

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[18] Kiras notes, "personal relationships between component commanders might have mitigated this source of friction." Moseley and General Paul T. Mikolashek (CFLCC) reportedly had a "personality conflict." Regardless, CFLCC did not seek out air contributions to the plan until Franks asked for an air assessment five days prior to the operation. See James D. Kiras, "T. Michael Moseley: Air Power Warrior," in *Air Commanders*, ed. John Andreas Olsen (Washington DC: Potomac Press, 2013), 405. The lack of planning resulted in a poorly established system to "handle close air support requests. Coordination of pre-strike targets, logistics and communications was inadequate." See US Air Force, AF/XOL, *Operation Anaconda: An Air Power Perspective* (Washington, DC: Headquarters, USAF, 2005) 6.

[19] James D. Kiras, "T. Michael Moseley: Air Power Warrior," in *Air Commanders*, ed. John Andreas Olsen (Washington DC: Potomac Press, 2013), 410.

[20] James D. Kiras, "T. Michael Moseley: Air Power Warrior," in *Air Commanders*, ed. John Andreas Olsen (Washington DC: Potomac Press, 2013), 412.

[21] US Air Force, AF/XOL, *Operation Anaconda: An Air Power Perspective* (Washington, DC: Headquarters, USAF, 2005) 113.

In his external relationship with component commanders, Moseley sought to open communication and coordination channels bolstered by mutual respect and trust.  This effort was of critical importance because "working relationships between the commanders, and particularly the staffs, of the air and land components" were an issue.[22]  The land component "had not had time to gain experience in how to work with the air component."[23]  Moseley's efforts in restructuring his air component into a professional, disciplined, adaptive staff built the respect and trust he needed to meet his peers on an equal level, not a subordinate one. Moseley displayed "a willingness to engage directly, yet informally, with his other Service counterparts to resolve issues; [insisted] that his counterparts send officers as good as the ones he dispatched... and [placed] trust in these liaison officer's abilities."[24]  His feedback was candid and direct, and he accepted criticism with humility e when on the receiving end.  He proved that the air component could deliver, and he expected the same from his counterparts.

This short vignette emphasizes the critical nature of relationships, and the negative and positive effects they have on the outcome of joint operations.  Commanders must strive to develop respect and trust internally among subordinates and externally to their component counterparts and commanders outside of their organization.  Yet they must also consider several additional factors, discussed below, many of which influence the nature of their relationships.

**Risk**

Military operations are inherently risky.  The presence of risk, to mission and force, is an issue for all military operators to mitigate, if not

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[22] US Air Force, AF/XOL, *Operation Anaconda: An Air Power Perspective* (Washington, DC: Headquarters, USAF, 2005) 45.

[23] US Air Force, AF/XOL, *Operation Anaconda: An Air Power Perspective* (Washington, DC: Headquarters, USAF, 2005) 45.

[24] Quoted in James D. Kiras, "T. Michael Moseley: Air Power Warrior," in *Air Commanders*, ed. John Andreas Olsen (Washington DC: Potomac Press, 2013), 415.

resolve.  Commanders, however, are responsible and accountable for the risk they choose to accept.  Mitigation attempts to balance the risk to force (personnel) against the threat with the risk to mission.

Risk manifests itself in many forms, from Clausewitz's recognition of fear and indecision to the risk of outrunning supply lines and finding oneself outmaneuvered, overstretched, and cut off behind enemy lines.[25] Joint Publication 1-02 defines risk as the "probability and severity of loss linked to hazards."[26]  The same joint doctrine goes on to define hazard as "a condition with the potential to cause injury, illness, or death of personnel; damage to or loss of equipment or property; or mission degradation."[27]  Commanders, at all levels, must weigh these risks and hazards against the likelihood of success, be it risk to force, mission, the population, or career, among others.  Finding and maintaining the proper balance is an art commanders know as risk management.[28]  Like the artist, the commander has a few tools available to mold an operation. The most common tools are operational risk management (ORM) assessments and deliberate management during all planning and execution phases.[29]

Risk management assessments are a common practice among all of the Services during their individual planning efforts.  Matrices and assessments of risk are commanders tools, designed to assess the situation and apply the proper mitigation.  Yet, commanders are rarely alone when assessing risk.  With the increased scope and scale, and

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[25] Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, ed. and trans. (Princeton, NJ: Princeton University Press, 1976), pp. 113-121.

[26] Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 15 Mar 2014, 229.

[27] Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 15 Mar 2014, 115.

[28] Joint Publication 1-02 identifies risk management as "the process of identifying, assessing, and controlling risks arising from operational factors and making decisions that balance risk cost with mission benefits." Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 15 Mar 2014, 229.

[29] James C. Tanner, *Operational Risk Management at the Operational Level of War*, (Newport, RI: Naval War College, 1997), 2.

therefore complexity, of joint operations, personal and professional relationships between commanders directly influence the management of risk.  Trust in a fellow commander and his/her forces' capabilities, as well as information and intelligence sharing, serves to influence the evaluation and management of risk.  With the growing complexity of operations, and larger diversity of force, risk assessments may be more relevant and important in the joint environment.  Risk assessments, joint or not, evaluate three primary determinants: "time, control, and information."[30]

The element of time presents an interesting paradox for commanders.  Commanders use time to exercise, rehearse, train, and equip their units.  Time allows commanders the opportunity to develop plans, integrate forces, provide guidance, and develop relationships.  Time can also, however, separate units and deepen institutional rivalries, which in-turn lower effectiveness and efficiency.

Senior commanders attempt to address the second determinant of risk, control, in part, by directing command relationships.  Assigning, delegating, and directing operational control (OPCON), tactical control (TACON), as well as defining supported and supporting relationships, theoretically removes ambiguity and confusion regarding "who is in control."  However, confusion continues to occur in execution, regardless of the density of the "fog of war" or severity of friction.  Lifting the fog and reducing friction requires information, either through joint education to understand joint forces better, or through intelligence to understand thy enemy.

Information is the third critical determinant of risk.  The military professional is well aware of the value of good intelligence and the

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[30] Tanner identifies these three crucial determinants in all risk decisions. In his paper, Tanner examines ORM at the operational level of war, arguing for a five-step ORM process.  Such a process, he contends, provides "operational commanders [with the ability] to anticipate, evaluate, and reduce risk… [at the] level commensurate with accomplishing the mission."  See James C. Tanner, *Operational Risk Management at the Operational Level of War*, (Newport, RI: Naval War College, 1997), 3.

potential results of poor intelligence.  Having good information always requires commanders to take steps to protect it.  Commanders ensure protection of information through the development of internal protection and processes.  My focus shifts the emphasis to the sharing of information through relationship building.  Personal and professional relationships develop the respect and trust necessary to share and divulge information.

**Doctrine**

Chapter One explored the doctrinal definitions and aspects of command relationships.  The importance of doctrine in command relationships is often understated.  Doctrine provides a valuable service by serving as a repository of lessons learned and theoretical concepts to enable or spur thoughts and ideas within a war fighter.  However, doctrine must never become doctrinaire—a repeatable template for action or a substitution for critical evaluation and thought. As Yogi Berra said, "In theory there is no difference between theory and practice. In practice there is."[31]  Doctrinal and tactical employment of forces may not be one in the same.  In many instances, doctrine merely provides a framework, a set of guidelines to help commanders approach the unique problem set they are facing.  Commanders and their staffs must adapt or modify doctrinal concepts to fit into the specific context, and nature of the conflict, with which they are faced.

**Weight of Effort**

Weight of effort is a commonly used military term without definition.  The Air Force acknowledges weight of effort as an element that shapes planning.  Strategists and planners must account and deal with it.[32]  The Army and Navy recognize priority (and priorities, respectively) of effort and do not refer to weight of effort.  Given a lack of

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[31] Brainy Quote, "Yogi Berra Quotes," http://www.brainyquote.com/quotes/authors/y/yogi_berra.html.
[32] Joint Publication 3-30, Command and Control of Joint Operations, 10 Feb 2014, III-9.

adequate definition, priority of effort can and often is made synonymous with weight of effort.

Most military personnel translate weight or priority of effort as the focus of military operations. In other words, such effort is the point at which energies are focused or expended. For this reason, weight of effort influences the character of conflict and the designation of supporting or supported relationships during an operation. It is therefore a factor that influences command relationships, even if it plays a minimal role or it is constantly changing.

**Preponderance of Force**

Preponderance of force as a factor in command relationships refers to the bulk of forces presented by a Service. For example, the "Joint Force Commander (JFC) will normally assign Joint Forces Air Component Commander (JFACC) responsibilities to the component commander having the preponderance of forces to be tasked and the ability to effectively plan, task, and control joint air."[33] The same is true of space operations and air and missile defense. Normally the Service with the largest contribution of forces retains operational control of the respective domain.[34]

Interestingly, Joint Publications are contradictory on the importance of preponderance of force. The role of the JFACC, for example, is partially determined by the preponderance of force. In some cases, if providing the preponderance of force and capability to command and control, the Navy may assume JFACC responsibilities. Regardless of which Service assumes the responsibilities of the JFACC due to preponderance of force, the area of operation (AO) of airpower responsibility is not specified. This often occurs as airpower operates

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[33] Joint Publication 3-30, Command and Control for Joint Air Operations, 10 Feb 2014, II-2.
[34] More specifically, "The JFC will normally designate the
Service component commander who has the preponderance of forces and the ability to
command and control them as the functional component commander." See Joint Publication 3-0, Joint
Operations, 11 Aug 2011, IV-8.

within, across, and outside of the AO, and at all levels of war (tactical to strategic). In contrast to the JFACC, a JFLCC is designated "when forces of a significant size and capability of more than one Service component participate in a land operation."[35]

Joint land operations consist of one or any combination of Army, Marine, or SOF.[36] It is theoretically possible to designate a Marine commander as the JFLCC, however unlikely that case will be. Unlike the unclearness surrounding airpower's AO, the JFC specifies the land components AO. The JFLCC is designated the supported commander within the land AO and "assigns responsibilities to subordinate land commanders."[37] The use of such language creates relationships that may not be accurate. In most phases of an operation, airpower supports the JFLCC. Given the JFLCC is the supported commander and retains the authority to assign subordinate responsibilities to land forces, it is easy for Army commanders to follow suit in assigning responsibilities to their supporting units, including the air component. This becomes problematic for the air commander.

Airpower is not subordinate to land forces. The context in which a supported JFLCC assigns responsibility to subordinate ground forces is not transferrable to a separate Service component. Air Forces are rarely in the same chain of command, provided the JFC has assigned a JFACC. Supporting relationships preserve authorities and responsibilities inherent in command. The source of confusion is obvious—haphazardly mixing terminology, particularly between key words that provide specific meaning—and can be very dangerous to those at the lowest levels fighting directly with the enemy.

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[35] Joint Publication (JP) 3-31, *Command and Control for Joint Land Operations*, 24 Feb 2014, .x.
[36] Joint Publication (JP) 3-31, *Command and Control for Joint Land Operations*, 24 Feb 2014, .ix.
[37] Joint Publication (JP) 3-31, *Command and Control for Joint Land Operations*, 24 Feb 2014, .x.

## Conclusion

Service officers are the product of their culture and operating environment. When such officers become commanders, they approach joint warfare and command relationships largely through their individual Service's cultural and operating environment lenses. The Nichols-Goldwater Act requires closer joint integration through joint education and experience for all officers. As this chapter has shown, however, the timing of such education and experience is not consistent in the development of officers across the Services, and in some instances, within each Service. Nor are the opportunities to command.

Historical and recent military operations consistently highlight several recurring themes. This chapter has explored five of those themes as factors serving to influence command relationships. These factors are: relationships, including personal and professional aspects, risk, doctrine, weight of effort, and preponderance of force. During the writing of this thesis I became aware that these factors interconnect and influence each other in the command process. Four of the factors—risk, doctrine, weight of effort, and the preponderance of force—appear to influence the conduct of command relationships and influence personal and professional relationships. It is possible that these independent factors are key ingredients of relationship building. The next three chapters examine case studies spread across location and time to explore successful and unsuccessful command relationships through the lens of these factors.

# Chapter 3

## Case Study I: The Chindits and the Air Commandos

*Of all the lessons we learned about tactical air operations, perhaps the most important is that the air commander, his group, and squadron commanders must have a sincere desire to become part of the ground team. The Army must, of course, have the same dedication to reciprocate. This close liaison can come only from close day-to-day contact—especially at command levels; there must be almost instantaneous communication between ground and air and through all the chain of command.*

<div align="right">

Lt Gen Elwood R. "Pete" Quesada

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*This man believes we can do it for him so we are going to produce.*

<div align="right">

Col Philip G. Cochran, 1943.

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The China-Burma-India Theater (CBI) during World War II was witness to a broad range of Allied military operations. Such operations included the Flying Tigers' air defense missions over China, Fourteenth Air Force bomber and transport aircraft flying over the Himalayan "Hump" to deliver fuel and supplies in China, and engineers building the overland "Ledo Road" to China. In addition to numerous conventional operations, the CBI Theater saw numerous special operations missions, those by the Chindits and the 1st Air Commando Group in Burma and later, deep missions against the Japanese in Burma by Merrill's Marauders. Given its breadth of operations, it is ironic that the CBI has become the "Forgotten Theater of World War II."[1] The Allies' strategic plan to win in the Pacific required operations in the "Forgotten Theater."[2]

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[1] More information and resources regarding the CBI, to include pamphlets, publications, stories, and historical references, is located at http://cbi-theater.home.comcast.net/~cbi-theater/menu/cbi_home.html.

[2] Operations in the CBI theater are considered "forgotten" because of the emphasis on operations in the European theater and the island hopping campaign in the Pacific. Allied operations focused on Europe's liberation first, followed by the Pacific theater. Island hopping and strategic bombing provided the means

Keeping China in the war and the Japanese Army tied up on the Asian mainland was critical to the war effort as the Allies across the Pacific.

The case study of Orde Wingate's Chindits, and the Air Commando's supporting them, is unique even in a theater characterized by diverse operations. The combined efforts of the Chindits and Air Commando's in Burma were unconventional, both in operations and in organization. Missions conducted inside Burma were subordinate to a larger regional operation, nested within an even larger Pacific campaign. The development of command relationships and integration of the two forces overcame distinctive challenges, which in turn relied upon several important command relationship factors identified in Chapter Two. These five factors provide the framework for this chapter through which Chindits and Air Commando operations are explored. The challenges, effectiveness, and ultimate success of the Chindits and Air Commandos provide an exemplary case study of unconventional joint integration of air and land forces during the World War II (WWII) period of airpower.

The role of airpower in support of the Chindits is particularly interesting in this case. The Air Commando Group was created in response to a British request to provide the Chindits with air support. Air Commandos flew a wide range of aircraft, in extremely challenging conditions and environments, in the face of enemy threats, in order to support ground forces. As the U.S. Army Air Corps had no prior special operations units or experience, the Air Commandos had to develop capabilities and relationships with the Chindits rapidly, from scratch, to ensure mission success.

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for Allied forces to regain control of the Pacific, ensure logistical supply lines, freedom of maneuver, and prepare for the invasion of Japan. The official USAAF report states "The mission of Admiral Mountbatten, Supreme Allied Commander, Southeast Asia Command, was to protect, develop, and expand air and land communications between India and China, and to make whatever progress was possible with the limited resources at his disposal toward clearing the Japanese out of Burma." See National Museum of the US Air Force, "Burma-India Operations," United States Army Air Forces Report (27 Feb 1945), http://www.nationalmuseum.af.mil/factsheets/factsheet.asp?id=1768.

This case study focuses on the application of force by examining the integration and development of command relationships.  More specifically, this section investigates the primary factors that influenced key leaders and their relationships with one another.  This chapter consists of two parts beginning with a broad overview of the Chindits and the Air Commandos, their mission, and their unique operational challenges.  The second part investigates the outcome of the combined Chindits and Air Commando operations by analyzing them through the five factors identified in Chapter Two: personal and professional command relationships, risk, doctrine, weight of effort, and preponderance of force.

### A Guerrilla and two Fighter Pilots

By the time Brigadier General Orde Wingate accompanied British Prime Minister Winston Churchill to the 1943 Quadrant Conference in Quebec, Wingate and his "Chindits"[3] had completed Operation LONGCLOTH.  The operation focused on long-range penetration (LRP) groups attacking Japanese forces well behind enemy lines.  Tactically, the Chindits successfully disrupted Japanese communications as well as their movement of supplies.  As a testament to their effectiveness, Japanese commanders would later "admit that the Chindits were difficult to deal with effectively and had completely disrupted their plans for the first half of 1943."[4]

Not all British general officers were enamored with Wingate's ideas, or the strategic efficacy of LRP missions.  As Rooney reports, British pundits believed Operation LONGCLOTH "had no strategic value, and the [enemies] military damage and casualties were small compared

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[3] Wingate saw two traditional lions at a Burmese temple, which, according to his Burmese officer Aung Thin was called "Chinthe."  Wingate misunderstood the word and pronounced it "Chindit."  The first public acknowledgement of the nickname, "The Chindits," appeared in a Daily Express article written on 21 May 1943.  See Christopher Sykes, *Orde Wingate*, (London, UK: Collin Press, 1959), 380, 436.

[4] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 99.

to the effort involved."[5]  Friendly casualties were too high and the survivors suffered from low morale. The Chindits had to "leave their wounded and leave some food and water and a rifle with him and walk off and leave him."[6]  Wingate was keenly aware of his soldier's morale. He defended the value of LRP missions as he lobbied senior British military leaders for support.  Reluctantly, senior leaders began to admit that LRP operations provided psychological disruption of Japanese operations.  The Chindits had proven that allied forces could operate in the treacherous jungles of Southeast Asia equally if not better than the Japanese.[7] The ultimate success of Chindit operations, and whether or not they were worth the resources dedicated to them, remains the subject of historical debate.[8]

Regardless of the historical controversy in their initial operations, it remains true that the Chindits had taken large losses, both in men and morale.  One key to improving morale, and increasing casualty survival rates, was to increase the effectiveness and efficiency of casualty evacuation (CASEVAC) operations.  Wingate recognized the toll of special operations and the psychological effects of operations behind enemy lines without dedicated support on his troops.[9]  The means to conduct CASEVAC operations, however, were not available to him.  Aircraft, the

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[5] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 101.

[6] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 346, USAF Historical Records Agency.

[7] Herbert A. Mason, Randy G. Bergeron, and James A. Renfrow, *Operation Thursday: Birth of the Air Commandos*, (Washington, DC: Air Force History and Museums Program, 1994), 7.

[8] The historical debate regarding the Chindits centers on two perspectives: one highly critical of Orde Wingate, and by extension, his concept of operations; and, another highly supportive of Orde Wingate and LRP.  The former largely consist of regular British Army officers and revisionist historians, while the latter initially consisted of officers and men who served with Wingate. The most insightful critique of Chindit operations was made Field Marshal William Slim.  See Slim, *Defeat into Victory* (London, UK: Cassell, 1956), 546-549. Works defend Wingate's reputation include David Rooney, passim; Peter Mead, *Orde Wingate and the Historians* (Braughton, UK: Merlin, 1987); and most recently, Simon Anglim, *Orde Wingate and the British Army, 1922-1944* (London, UK: Pickering & Chatto, 2010).

[9] Wingate remarked, "We just can't do it any more.  We have got to have some light planes to evacuate our wounded."   See Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 346, USAF Historical Records Agency.

primary method to resupply and evacuate forces, did not exist in any significant number for Wingate's use.  Both the Royal Air Force (RAF) and US Army Air Forces (USAAF) were outnumbered and overstretched, leaving few assets to cover multiple requirements.  To obtain these additional assets, Wingate would need to receive political backing and prioritization of resources.

Wingate found his political support ultimately through British Prime Minister Winston Churchill.  Churchill had read Wingate's report, finding Wingate to have "at last brought some success through his own leadership and daring."[10]  Churchill had already been "critical of the inertia, inefficiency, and defeatist attitude prevalent in India,"[11] so Wingate's audacity came as a welcome relieve to Churchill.  After dining with him, Churchill decided to take Wingate to the Quadrant Conference.  At this conference Wingate would present "his plans for LRP, for the Combined Chiefs of Staff, Roosevelt and Churchill."[12]  The group quickly accepted the plan, however, the "most important achievement was to gain the support of General George C. Marshall and General Henry "Hap" Arnold."[13] After learning that Wingate "had to leave his wounded…Churchill introduced [Wingate] to Marshall and said, 'Can you help him?'  Marshal turned to Arnold and said, 'I want you to help this man.' Arnold said, 'We are going to get his wounded out.'"[14]  Wingate now

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[10] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 102.

[11] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 102.

[12] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 102-103.

[13] American support was critical to the success of Wingate's operations.  The British did not have the resources. Aircraft were simply not available. The US support provided Wingate with the aircraft he desperately needed. Just as important, Arnold capitalized on Roosevelt's support by increasing the size of scope of the USAAF and airpower in general. See David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 103.

[14] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1065, interview by Lt Col John N. Dick, JR., 27 Jan 1977, 70, USAF Historical Records Agency.

had the necessary backing from Churchill and Gen Henry "Hap" Arnold to support his Chindits with airpower.

The experimental Air Commando project came into existence following Churchill's request for American air support. The experiment had deeper intentions for airpower. General Arnold wanted "to demonstrate that we can use ships in the air just like we use ships on the sea. [He] wanted to stage an aerial invasion of Burma."[15] Airpower could change the dynamics of LRP missions. Instead of long-range foot patrols with their inherent range limitations, airpower could resupply the Chindits and provide fire support to soldiers on the ground almost indefinitely. Just as importantly, if not more so, airpower could provide the CASEVAC support Wingate desperately needed. Arnold also saw utility in developing special air capabilities with select aircrew. Airpower could be the decisive element needed to enable the ground force. The specialized mission would require specialized equipment and specially trained aircrew.[16] Arnold selected Lieutenant Colonel Philip Cochran and Lieutenant Colonel John Alison as the commander and deputy commander giving them "the resources to do it" and latitude to select and train this new special unit.[17]

Newly promoted to Major General, Wingate planned to return to the Burmese jungle. Supported by "the No 1 Air Commando Group under the leadership of Colonels Cochran and Alison," Wingate envisioned extended operations, deeper into Japanese held territory, with

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[15] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 347, USAF Historical Records Agency.

[16] The experiment began, changing names and designation five times, as it "evolved, from Project 9 to Project CA 281, then to 5318th Provisional Unit (Air), then to Number Air Commando Force and finally 1st Air Commando Group." Arnold initially referred to the top-secret mission as "Project 9" and the airmen participating in it as "air commandos." See CBI Unit Histories, 1st Air Commando Group, http://www.cbi-history.com/part_vi_1st_air_commando_gp.html and Jeff Michalke, "The history of the 1st Special Operations Wing revisted," *Air Force Special Operations Command*, 17 Nov 2006, http://www2.afsoc.af.mil/news/story.asp?id=123032287.

[17] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 347, USAF Historical Records Agency.

more significant impact to Japanese operations.[18]  The Air Commandos would support Wingate with a wide variety of aircraft in the conduct of mobility, infiltration and exfiltration, fire support, and CASEVAC.[19] The Air Commando Group "was a very large force, including 100 gliders, nearly 100 light aircraft, 30 P-51 Mustangs, 25 B-25 Mitchells, 20 C-47 Dakotas, and 12 large transport aircraft. There were even some Sikorski helicopters."[20]  This diverse unit provided tremendous capability.  At the same time, the diversity of assets increased risk.  The large force with such a wide variety of aircraft required meticulous supply and maintenance, as well as coordinated training.

The following months involved rigorous training, the development of new tactics, and the building of relationships.  The Air Commandos became familiar with multiple airframes and special tactics involving towing two, instead of one, glider behind each C-47.  Short field take-off and landing training was vital to operations in the jungle, as were night operations and navigation in challenging terrain and weather.  The Air Commandos also became familiar with the Chindits mission and their dedication to the mission.  The Chindits, likewise, grew appreciative of the Air Commandos tenacity and dedication in support of their mission. The mutual respect, confidence, understanding, and pride became a critical ingredient in the relationships between air and ground forces.[21] These relationships would pay off as the Chindits and Air Commandos began joint operations.

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[18] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 104.

[19] The Air Commandos flew "not only fighters and light bombers for close support, but transport aircraft, gliders, light planes for inter-communication and evacuation of the wounded." See Field Marshal Sir William Slim, *Defeat Into Victory*, (London, UK: Cassel & Co, Ltd, 1956), 217.

[20] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 104.

[21] The Chindits and Air Commandos began to operate as one team, a joint team.  Field Marshall Slim states "Quick and accurate co-operation… did not come in a day; it grew with the airmen's and soldiers' mutual confidence, understanding, and pride in one another's achievements."  See Field Marshal Sir William Slim, *Defeat Into Victory*, (London, UK: Cassel & Co, Ltd, 1956), 544.

On 5 March, 1944, Wingate's Operation THURSDAY commenced. The operational design included ground maneuvers supported by airpower to disrupt Japanese operations in the CBI theater.[22]  The operation also set into motion Wingate's "concept of setting up a powerful Stronghold in the heart of enemy territory, from which marauding columns would attack the weakly held supply and communications centres [of the enemy]."[23]  Air Commandos flew the Chindits behind enemy territory, landing lightweight gliders in small jungle clearings with an overloaded cargo of men, equipment, and in some cases, animals.[24]  Risk was high.  The defenseless gliders could not make a second landing attempt in the rugged, Japanese-held terrain.  The odds of comprised landing zones and risk of ambush were equally high.  Fortunately, there were no ambushes; however, several casualties resulted from gliders impacting ditches and trees.

Nearly one week later, on 11 March, Operation THURSDAY officially concluded.  However, the Chindits, with the support of the Air Commandos remained in the field fighting the Japanese in ferocious battles, at times in close quarters.  The Chindits would continue fighting, even after the 1st Air Commando Group withdrew in May 1944.

Operation THURSDAY and follow-on operations resulted in heavy losses for the Chindits.  Of the 10,000 – 12,000 men comprising the Chindit force during Operation THURSDAY, 943 were killed, 2434 were

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[22] The operational objective included "reestablish[ing] the land route between India and China." See Herbert A. Mason, Randy G. Bergeron, and James A. Renfrow, *Operation Thursday: Birth of the Air Commandos*, (Washington, DC: Air Force History and Museums Program, 1994), 0.

[23] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 111.

[24] The "glider force of 12,000 men… [flew] in the dark, tugged over mountain ranges 7,000 feet high, aiming at small jungle clearings where there was no possibility of a second run if the glider overshot the mark, and where… the Japanese might well be waiting to ambush them as they left the gliders." See David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 116.  The USAF official fact sheet states that 10,000 men were inserted.  See also Factsheets: Operation THURSDAY, http://www2.hurlburt.af.mil/library/factsheets/factsheet.asp?id=3387.

wounded, and 452 went missing in action.[25]  In comparison, the Japanese 15th Army "lost 65,000 men [and] nearly 50% of its strength,"[26] a remarkable feat for Wingate's small force.  Lieutenant General Renya Mutaguchi, later captured and interrogated, "admitted [that] 'The Chindit invasion… had a decisive effect on these operations… they drew off the whole of 53 Division and parts of 15 Division, one regiment of which would have turned the scales at [the battle of] Kohima.'"[27]  The Chindits were "a major factor in the disaster which befell [Japanese] forces."[28]  The aerial invasion of Burma provided Wingate with the means to accomplish his mission.

## Developing Effective Command Relationships

As Chapter One outlined, senior military leaders designate command relationships to their subordinates.  The Chindits and the Air Commandos received their direction from each of their respective governments, services, coalition commander, and finally immediate commander.  Today we have examples and education provided by joint doctrine to guide the development and employment of joint forces.  In the

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[25] Exact numbers are difficult to find and vary by source. The average appears to be represented in Chindits, *The Final Battles, The 2nd Chindit Expedition 1944*, http://www.chindits.info/Thursday/FinalBattles.htm (accessed 2 February 2014).

[26] This remarkable number may be deceiving.  The number of men, 65,000, would represent four plus divisions. However, Mutaguchi mentions only two divisions, the 53 and 15 Divisions. The 15th Army reportedly consisted of the 18th, 31st, 33rd, 56th, and 15th Divisions. The 18th and 56th Divisions were transferred to 33rd Army in April 1944. It is likely that the 53 Division was the 33 Division and mistranslated during interrogation. However, the disconnect remains. See Simon J. Anglim, *Major General Orde Wingate's Chindit Operations in World War II: Historical Case Study for the Operating Without a Net Project.* (University of Reading, UK: March 2009), http://www.academia.edu/647651/Major_General_Orde_Wingates_Chindit_Operations_in_World_War_II_-_Historical_Case_Study_for_the_Operating_without_a_Net_Project, 37, and George F. Nafziger, *Japanese Monograph No. 134, Burma Operations Record, 15th Army Operations in Imphal Area and Withdrawal to Northern Burma*, (Ft. Leavenworth, KS: Army Command and General Staff College, 2004), http://www.cgsc.edu/CARL/nafziger/943PCAC.pdf, 1.

[27] Simon J. Anglim, *Major General Orde Wingate's Chindit Operations in World War II: Historical Case Study for the Operating Without a Net Project.* (University of Reading, UK: March 2009), http://www.academia.edu/647651/Major_General_Orde_Wingates_Chindit_Operations_in_World_War_II_-_Historical_Case_Study_for_the_Operating_without_a_Net_Project, 37.

[28] Simon J. Anglim, *Major General Orde Wingate's Chindit Operations in World War II: Historical Case Study for the Operating Without a Net Project.* (University of Reading, UK: March 2009), http://www.academia.edu/647651/Major_General_Orde_Wingates_Chindit_Operations_in_World_War_II_-_Historical_Case_Study_for_the_Operating_without_a_Net_Project, 37.

1940's, however, joint and coalition warfare occurred without the benefit of joint doctrine or education. To say that the situation was so unique that we cannot learn from the command relationships would be overly simplistic. Nearly all command relationships are unique, even if personalities are the only discriminating factor.

Wingate's personality influenced his unique command style and relationships. Other leaders and peers describe Major General Orde Wingate as "strange, brooding, [and] perplexing,"[29] "lonely and eccentric… and a brave, resourceful and brilliant soldier, who ranks among the outstanding military leaders of the Second World War."[30] Reports indicate that as an Army officer "he had been a difficult and abrasive colleague, who inspired deep loathing and resentment, and, at the same time, respect, loyalty, and devotion."[31] Yet this unique individual inspired his soldiers, developed intricate and daring plans, executed them with bravery and courage, and learned from his mistakes. He also managed to obtain the necessary support from his fellow commanders, and political masters.

Wingate's relationship with Churchill, although superficial and short, was positive and significant to the development of both the Chindits and the Air Commandos. Churchill saw "a man of genius and audacity." [32] He reportedly remarked after dinner with Wingate that they "had not talked for half an hour before I felt myself in the presence of a man of the highest quality."[33] Churchill's respect and admiration of Wingate's "can-do attitude" was enough to introduce Wingate to

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[29] Leonard Mosley, *Gideon Goes to War*, (London, UK: Arthur Barked LTD, 1955), 248.

[30] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 9.

[31] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 9.

[32] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 102.

[33] Quoted in David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 102.

President Roosevelt, and request General Arnold's assistance for airpower.

The personal relationships between Churchill, Roosevelt, and Arnold further enhanced the urgency and legitimacy of Wingate's request. Without hesitation, Arnold promised to support Wingate and his Chindits. While the motive may have been the expansion of AAF capabilities and roles, propaganda to further the Air Force in general, or a combination of all these factors (and possibly other's), the unhesitant promise and delivery of support to Wingate displays the relationships that were already established and continually maintained by senior leaders.

General Arnold's selection of Lieutenant Colonel Cochran and Lieutenant Colonel Alison was also trust-based. While the personal relationship was not as evident between Arnold and the two Lieutenant Colonels, his trust in their abilities was obvious. Both Cochran and Alison were chosen based upon their qualifications; they were "the two most capable lieutenant colonels he [Arnold] could find."[34] Arnold envisioned more than a special aerial force, with the two Colonel's fighter pilot background; he could "develop and demonstrate a new capability for airpower."[35] Arnold had selected the best innovative duo that would dismantle the problem, determine a solution, and then implement it. Much like Wingate, they showed determination and creativity.

Cochran and Alison had a long personal relationship upon which to build. Alison describes, "Phil and I went through the flying school about the same time. We were close personal friends. We had flown together in training. We were assigned to the same squadrons when we

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[34]John T. Correll, "The Air Invasion of Burma," *Air Force Magazine*, Vol 92, No. 11, November 2009, http://www.airforcemag.com/MagazineArchive/Pages/2009/November%202009/1109burma.aspx (accessed 2 February 2014).

[35] John T. Correll, "The Air Invasion of Burma," *Air Force Magazine*, Vol 92, No. 11, November 2009, http://www.airforcemag.com/MagazineArchive/Pages/2009/November%202009/1109burma.aspx (accessed 2 February 2014).

got out of the flying school.  We had a high respect for each other.  We had no command problems whatsoever."[36]  Wingate saw "Colonels Cochrane and Alison, [as] both outstanding fighting aces, and, what is not always the same thing, first-class organizers and leaders."[37]

The interactions and relationship building between Wingate, Cochran, and Alison had to be professionally competent and personally amiable given the challenges they faced in creating and deploying forces that were so intimately connected.  Cochran set off to meet Wingate from the very beginning.  As Alison relates, "This was, in my opinion, absolutely necessary that the commander of the air unit that was going to support Wingate talk to him before we finalized our organization and the equipment that we were going to take to Burma.  He [Cochran] and Wingate just immediately hit it off.  Both of them were unusual personalities.  Wingate was just delighted with Phil."[38]  The mutual understanding of the mission and each other's capabilities and desires were fundamental to developing a cohesive joint operation.  Cochran's "meeting with Wingate was useful and gave him a better insight into what we were going to do and whom we were going to be supporting."[39]

From the beginning, the Chindits and Air Commandos began building a relationship built upon trust and respect.  The development of personal relationships, however, may not have been as immediate as Alison reports.  As one scholar reports in his research, Cochran and Wingate "took an instant (but fortunately temporary) dislike to each other."[40]  He goes on to add, however, that "It is a measure of Wingate's personality and perseverance that he eventually won the admiration and,

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[36] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 348, USAF Historical Records Agency.

[37] Field Marshal Sir William Slim, *Defeat Into Victory*, (London, UK: Cassel & Co, Ltd, 1956), 217.

[38] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 366, USAF Historical Records Agency.

[39] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 367, USAF Historical Records Agency.

[40] Leonard Mosley, *Gideon Goes to War*, (London, UK: Arthur Barked LTD, 1955), 217.

more important, the willing and unstinting co-operation of this All-American hero [Cochran]."[41]

The different perspectives above each provide insight into the personalities of these two leaders.  Alison, who worked closely with both Cochran and Wingate, said, "He [Wingate] would be critical of both his peers and his superiors. I don't say he was wrong, but Wingate did have problems in his peer relations and with his relations with some of his superiors."[42]  Wingate and Cochran were both dominant, type-A personalities.  It is likely they had early confrontations; however, as Alison notes above, they quickly moved on to work together.  Wingate and Cochran managed to minimize these personal nuances, focus on the mission, and form an effective joint force.  The two units focused on training and the development of new tactics to provide the necessary air support to the ground force.

Wingate's recognition of certain American cultural traits overcame his prejudice towards them and natural introversion.  In particular, he noted that the Americans worked hard and produced results. Wingate wrote a letter home stating, "I am growing to be quite fond of the Americans.  They get things done."[43]  Trust and respect grew between the Chindits and Air Commandos as the two units continued training together.  The units trained "Throughout Christmas and New Year, both sides of the operation–Chindits and Air Commando–work[ing] almost without a break on preparations and exercises."[44] The two commanders continued to grow closer during this time, to the point that "Phil for a time just kind of lived with Wingate."[45]  Field Marshal William Slim, the Chindits' "joint force commander" in today's language, believed one of the

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[41] Leonard Mosley, *Gideon Goes to War*, (London, UK: Arthur Barked LTD, 1955), 218.
[42] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 382, USAF Historical Records Agency.
[43] Leonard Mosley, *Gideon Goes to War*, (London, UK: Arthur Barked LTD, 1955), 229.
[44] Leonard Mosley, *Gideon Goes to War*, (London, UK: Arthur Barked LTD, 1955), 226.
[45] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 423, USAF Historical Records Agency.

difficulties with Wingate to be "with Wingate himself. I do not think he ever confided his intentions or ambitions fully to anyone."[46] If he did ever confide his intentions, he may have done so with Cochran. The two units were amalgamating into one force.[47] The barrier between the two was slowly breaking down.

Continuous training served another function. Training lowered risk to both the mission and the force. Wingate "was determined that everything should be planned and tried out before he risked his Chindits in actual battle."[48] Precision, skill, and dedication of Air Commandos and Chindits alike became critical to efficient operations within a manageable level of risk. Rigorous training developed trust and confidence in each other's capability, serving to lower risk. Cochran describes the unique relationship between the two units:

> As I say, our association became one where we began to realize the capability of the other. The air began to realize the capability of the ground, and what their project was, and what their aims were, and what they were about, and what they were going to do. We saw that more clearly; therefore, knowing what their plans were and what their capabilities were, and how they could inflict trauma on the enemy, we began to match what they could do with our air capability, and see how we could improve their effectiveness by the use of air. Conversely, they began to learn what we could do, and what we were capable of doing, then they could see how that would enhance their capabilities on the ground and even expand their power and their effectiveness. So I guess what I'm saying is, we began to form a good working team. We didn't overmatch ourselves. We didn't overextend our capabilities. We kept ourselves within bounds, even though many of the things were new and were a bit audacious. They might have looked audacious, but like many things that are well planned, they might look audacious, but they are pretty

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[46] Field Marshal Sir William Slim, *Defeat Into Victory*, (London, UK: Cassel & Co, Ltd, 1956), 217.

[47] The two units truly became a combined land and air operating force. Slim came to believe that "all operations on land are that. The land and air commanders responsible at each level must not only be in close touch, they should live together as we did." Co-location greatly improves communication and understanding as building blocks toward trust and respect. See Field Marshal Sir William Slim, *Defeat Into Victory*, (London, UK: Cassel & Co, Ltd, 1956), 546.

[48] Leonard Mosley, *Gideon Goes to War*, (London, UK: Arthur Barked LTD, 1955), 226.

doggone well-thought out.  We used to say, "If you know
your way in, and you especially know your way out, you're
ahead of the game.  If you don't know your way out, don't go
in."[49]

The challenges of special operations missions require close
relationships built upon trust and respect.[50]  War itself has several
challenges and difficulties to overcome.  Field Marshall Slim, Wingate's
immediate superior identified "One of the first difficulties that Wingate's
force posed was… [the] air component.  It was represented very strongly
by the air staffs, American and British, that it was uneconomical
permanently to lock up what was an appreciable proportion of our total
air strength in Burma in support of one subsidiary operation.  While I
agreed in principle-private air forces are no less wasteful than private
armies-I felt strongly that the air commando must remain part of
Wingate's force."[51]

Wingate himself saw airpower "as supportive of a ground offensive.
Wingate… demand[ed] that air elements supporting LRP should be under
the LRP commander, presumably an Army officer."[52]  However, the AAF
had no intent of providing the Air Commandos as a part of Wingate's
force.  Instead, the Air Commandos "had orders to operate "in support" of
Long Range Penetration, but throughout it was under U.S.A.A.F. control
and administration, and Wingate had no authority to command it in any

[49] Quoted in Maj Patrick V. Wnetrzak, "Finding Apollo's Warriors: The Future of the Air Commando
Heritage," in Col Philip G. Cochran, Transcript of U.S. Air Force Oral History Interview #876, interview by
Dr. James C. Hasdorff, October 20, 1975, 34:229-232, USAF Historical Records Agency.
[50] Special Operations Forces (SOF) are highly experienced and highly trained personnel. They are small in
number, with limited numbers of assets, and in high demand. The SOF community subscribe to five
essential truths.  These are: 1. Humans are more important than hardware, 2. Quality is better than
quantity, 3. Special Operations Forces cannot be mass produced, 4. Competent Special Operations Forces
cannot be created after emergencies occur, and 5. Most special operations require non-SOF assistance.
See Special Operations Command, "SOF Truths," http://www.socom.mil/Pages/SOFTruths.aspx.
[51] Field Marshal Sir William Slim, *Defeat Into Victory*, (London, UK: Cassel & Co, Ltd, 1956), 217.
[52] Simon J. Anglim, *Major General Orde Wingate's Chindit Operations in World War II: Historical Case
Study for the Operating Without a Net Project.* (University of Reading, UK: March 2009),
http://www.academia.edu/647651/Major_General_Orde_Wingates_Chindit_Operations_in_World_War_
II_-_Historical_Case_Study_for_the_Operating_without_a_Net_Project, 12-13.

way."[53]  Arnold was adamant in maintaining a close relationship between air and ground commanders.  At the same time, he had to foster flexibility.  Admiral Lord Louis (Earl) Mountbatten, Supreme Commander South-East Asia Allied Command and Arnold debated the command relationship with the Air Commandos.  The former desired an amalgamation of units, while the latter argued for "self-contained ground and air commands without any intermediate commanders between the air and ground echelon."[54]  Arnold eventually secured this arrangement after withholding additional forces.[55]

Today it is easy to relate the Air Commandos command relationship in a modern context.  Current doctrine would classify this relationship as being "under the tactical control of Wingate with operational control by Gen Arnold."[56]  Tactical control would indeed have allowed Wingate the ability to develop and assign air elements to missions, even though he would not have had administrative or operational control of the air component.  Such doctrinal relationships, however, were unknown in 1943.  Wingate's "view of air operations echoed the developing Allied doctrine for tactical airpower"[57] of his time.  Conversely, most AAF and RAF officers were beginning to believe that "air operations should be controlled at Army or Air Force level, all missions requiring approval from the Air Force Commander, who would cooperate with the Army Commander without being subordinate to him, and would have sole responsibility for setting airpower priorities

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[53] Christopher Sykes, *Orde Wingate*, (London, UK: Collin Press, 1959), 485.

[54] Notes, Arnold/Murray Green Collection, MS 33, box 47, #8.48, (Colorado Springs, CO: USAFA McDermott Library, June 1944), 1.

[55] Arnold was extremely keen to friction between air and ground forces. It is remarkable that he was playing a long game. Arnold had detailed and lengthy discussions with Cochran and Alison. He also explained the "step backward" of amalgamating air commandos with tactical organizations. See Notes, Arnold/Murray Green Collection, MS 33, box 47, #8.48, (Colorado Springs, CO: USAFA McDermott Library, June 1944), 1-2.

[56] Maj Patrick V. Wnetrzak, "Finding Apollo's Warriors: The Future of the Air Commando Heritage" (master's thesis, School of Advanced Air and Space Studies, Maxwell AFB, AL, 2013), 33.

[57] Simon J. Anglim, *Major General Orde Wingate's Chindit Operations in World War II: Historical Case Study for the Operating Without a Net Project.* (University of Reading, UK: March 2009), http://www.academia.edu/647651/Major_General_Orde_Wingates_Chindit_Operations_in_World_War_II_-_Historical_Case_Study_for_the_Operating_without_a_Net_Project, 12.

in the theatre of operations."[58]  These competing views of command and control (C2) were rather common during the early airpower years.  Interchanging key terminology and inconsistently using descriptors confused command relationships as much then as it does today.  Some commanders, Field Marshal Slim in particular, continued to believe the Air Commandos were part of Wingate's force, to the extent that he believed Wingate had a "private air force."[59]

The Air Commando-Chindit relationship was unique and different from the relationships established between other units in the theater. The "chain of command circumvented the traditional command hierarchy of the theater and gave other American commander's the misguided impression that the unit was Wingate's 'private air force.'"[60]  Part of this perception stemmed from "the manner in which it [the Air Commandos] had been raised, and the fact that it was designed for Long Range Penetration work."[61]  It is no wonder that the confusion surrounding these circumstances resulted in misunderstanding as it still does today. It is much easier to state that the "Chindits had their own pocket-sized air force"[62] then attempt to understand the differences associated with command relationships and their meanings.

Command relationships "worked smoothly, and Wingate, Cochran, and Alison acted in such close accord that the impression of a private air force was continually heightened."[63]  Regardless of the perception, Wingate never had a "private air force."  His demand to place the air component under the LRP commander never came to fruition.  The

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[58] Qouted in Simon J. Anglim, *Major General Orde Wingate's Chindit Operations in World War II: Historical Case Study for the Operating Without a Net Project.* (University of Reading, UK: March 2009), http://www.academia.edu/647651/Major_General_Orde_Wingates_Chindit_Operations_in_World_War_II_-_Historical_Case_Study_for_the_Operating_without_a_Net_Project, 13.

[59] Christopher Sykes, *Orde Wingate*, (London, UK: Collin Press, 1959), 485.

[60] Maj Patrick V. Wnetrzak, "Finding Apollo's Warriors: The Future of the Air Commando Heritage" (master's thesis, School of Advanced Air and Space Studies, Maxwell AFB, AL, 2013), 33.

[61] Christopher Sykes, *Orde Wingate*, (London, UK: Collin Press, 1959), 485.

[62] Charles F. Romanus and Riley Sunderland, *United States Army in World War II, China-Burma-India Theater, Stillwell's Command Problems*, (Washington DC: Office of the Chief of Military History, 1970), 196.

[63] Christopher Sykes, *Orde Wingate*, (London, UK: Collin Press, 1959), 485.

development of a strong personal relationship, built upon trust and respect between the air and ground components, provided Wingate with an air force in support of his Chindits.

The 1st Air Commando Group also remained separate from coalition C2 structures. In an interview, Alison is asked the question: "Were there efforts by the British to amalgamate the Air Commando units with the existing air tactical organizations as they existed?" He responds that "There were no efforts by the British. I think the Air Force in India, when we first came over, would liked to have done that, but we pointed out that this was a special unit on a special mission and was really a test and experimental unit that General Arnold wanted to keep it independent. General [George] Stratemeyer respected that. We really didn't have any trouble."[64]

The personal relationship between Cochran and Wingate apparently fostered a deep trust. For example, Wingate regularly consulted Cochran when developing schemes of maneuver. On the eve of Operation THURSDAY, Cochran authorized a reconnaissance flight over landing zone (LZ) 'Piccadilly'. The Air Commandos discovered a fouled LZ, photographing tree trunks and logs scattered throughout the clearing. Any landing attempt would be extremely dangerous and most likely result in disaster. Wingate was furious with the unauthorized mission, quickly calmed himself, "apologized for his outburst, because he realized that the photographs had prevented a certain disaster." Following a quick discussion, the Air Commandos and Chindits decided to take the assigned 'Piccadilly' forces to LZ 'Broadway'. Wingate clearly respected his air commander. Wingate acknowledged that Cochran's bold leadership and initiative had saved the Chindits from an immediate disaster. Furthermore, Wingate trusted Cochran and the Air Commandos to re-plan the mission from "Piccadilly" to "Broadway." As a result,

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[64] Maj Gen John R. Alison, Transcript of U.S. Air Force Oral History Interview #1121, interview by Maj Scottie S. Thompson, 22 Apr 1979, 387, USAF Historical Records Agency.

"The first gliders took off an hour and fifteen minutes after the original deadline."[65] The adaptability and flexibility of the two units and their commanders has become the hallmark of special operations ever since.

## Conclusion

The challenges faced by the Chindits and Air Commandos were unique. Their mission rapidly evolved, sharpened by continuous experimentation, rigorous training, and daring new tactics. Operating in a strenuous and tense combat environment required the development and fostering of strong personal relationships. Each leader's education, experience, and personality proved to play a critical role in these relationships, ultimately contributing to operational success. Major General Wingate was an eccentric and demanding leader, traits that made him well-known as a difficult officer with whom to work. Differences between Wingate's view of airpower and Colonel Cochran's view, an Airmen's point of view, provided another challenge for the two leaders to overcome. On one hand, Cochran just followed orders from his senior AAF leader's directing the command relationship between his Air Commandos and the Chindits. On the other hand, Cochran and Wingate developed a strong personal relationship built upon trust and respect. Their personal relationship and dedication to the mission smoothed over doctrinal differences, orders given by higher headquarters, and the unique environmental challenges surrounding operations in Burma.

The guerrilla and fighter pilot had been destined to disagree and work against one another. Instead, trust and respect developed, creating efficiency and synergy between the two leaders. Wingate began to take "our word that we would be able to carry out the operations which we had planned, and he asked us to elaborate on them."[66] Each unit adapted to the environment, the situation, and to each other. Training assisted with this adaptation, however, served other purposes also. An immense trust developed between each unit and their respective leaders

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[65] David Rooney, *Wingate and the Chindits: Redressing the Balance*, (London, UK: Arms and Armour Press, 1994), 115.

[66] Col John D. Alison, US Air Force (address, Annual Luncheon of the Associated Press, New York, NY, 24 April 1944).

as continuous training, experimentation, and development of new tactics ensued. Efficiency increased, as did the success and adoption of new tactics. The resulting increases in the likelihood of mission success and decrease of risk to both mission and force strengthened the trust and respect between forces. Training also established and clarified the relationship between aircrews and ground forces, as well as the overarching command relationship designed to control the two forces.

Clarity was critical in understanding the mission and translating it to subordinates. The command relationship confused commanders and scholars external to the Chindit-Air Commando relationship, as it continues to do so today. Mid-late 1940's doctrine did not include the same command relationship definitions and structures that officers are familiar with today. Different terminology and perceptions existed to describe the relationship; however, the key term "in-support" described the official command relationship. The Chindits and Air Commanders understood the relationship. Alison described his duty in the following way: "supporting Wingate's operation was my business."[67] The Air Commandos were supporting, not subordinate to or under the control of Wingate. Direct support to the Chindits provided the air commander with the authorities and responsibilities of command. The air commander approved operations and assumed the risk associated with air operations.

The "in-support" relationship provided Cochran with the authority to accept or deny missions. If the risk was too high, Cochran could deny the air portion of the mission. Similarly, Cochran had a significant part in mission planning. His air expertise was not only informative, but also influential to the mission. Cochran also maintained responsibility over his force. Wingate could not discipline (or reward) the Air Commandos. Had Cochran fallen under Wingate's control, the Air Commandos could have been employed as an adjunct of land forces, potentially increasing inefficiency and risk.

The Chindit case study provides an example of early WWII airpower in the joint/coalition environment. This study illustrates a

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[67] Col John D. Alison, US Air Force (address, Annual Luncheon of the Associated Press, New York, NY, 24 April 1944).

common narrative among joint operations. Superiors direct command relationships, however, personal relationships between commanders play an instrumental part in the effective employment of forces. The development of trust and respect increases the flexibility and synergy of units. Trust and respect fosters the development of adaptive TTPs that increase effectiveness and lower risk. Finally, the Air Commandos enabled the Chindits through increased efficiency and effectiveness and lower risk. As a supporting force, instead of a subordinate force, the Air Commandos embody an effective integration of airpower in a joint/coalition environment.

**Chapter 4**

**Case Study II: Operation EAGLE CLAW**

*There is a deeper failure than that of incomplete success, and*
*that is the failure to attempt a worthy effort, a failure to try.*
President James "Jimmy" Carter, April 29, 1980.

*To you all from us all for having the guts to try.*
Written on a RAF gift of Bass Ale beer.

At 0700 EST on 25 April 1980, President Jimmy Carter announced to the nation that an attempted rescue mission in Iran, Operation EAGLE CLAW, had ended in disaster.[1] The hostages remained in the seized embassy in Tehran, and the aborted rescue force retreated, leaving behind a scene of carnage at a remote desert refueling site known as Desert One. During the departure from Desert One, "a helicopter, maneuvering close to the ground, sliced into a large transport plane laden with fuel and ammunition."[2] Flames and exploding ordnance immediately engulfed both aircraft and personnel. Eight aircrew members, five on board an EC-130 and three in an RH-53, perished in the accident. The hostage rescue task force departed the scene leaving behind "five helicopters, weapons, communication equipment, valuable secret documents, and maps."[3] The Iranians would exploit the American disaster, further straining relations between the countries which continue to this day.

Operation EAGLE CLAW's failure contrasts starkly with the description of the successful joint operations conducted by the Chindits and Air Commandos in the previous chapter. Planning for EAGLE CLAW

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[1] Rod Lenahan, *Crippled Eagle: A Historical Perspective of U.S. Special Operations 1976-1996*, (Charleston, SC: Narwhal Press, 1998), 147.

[2] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 1.

[3] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 1.

commenced within days of the American embassy staff taken hostage and continued for several months.[4]  The joint task force (JTF) which emerged for the sole purpose of rescuing the hostages, had the time and resources available to adequately train and equip the force for the mission.  The team was not rushed into execution.  Despite having adequate time, the components of the JTF failed to properly integrate, conduct joint training, clearly articulate command relationships, and provide necessary intelligence to participants.  Instead, the JTF commander placed an overreliance on operations security (OPSEC), known as compartmentalization, and an ad-hoc command and control hierarchy.  These two factors contributed to "an informal command structure that [did] not appear to have been clearly established."[5]

This case study evaluates the causal factors associated with the JTF's failure at Desert One.  The chapter begins with an overview of the attack on the US Embassy, and examines the rescue operation's planning phase, known as RICE BOWL.  Next, it surveys the execution phase of the operation, known as EAGLE CLAW.  Cautionary lessons emerge from both phases of the operation.  Each phase illustrates the importance of clearly defined and articulated command relationships, as well as the influential nature of personal and professional relationships between commanders.  This chapter concludes by analyzing both phases of the mission.  Given that EAGLE CLAW was a single event, and not a campaign, the five factors from Chapter Two that characterize command relationships in the joint environment do not form the analytical framework of this chapter.  This chapter instead goes into considerable detail and highlights the five factors as appropriate.

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[4] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 118.

[5] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 118.

**RICE BOWL**

The situation in Iran began to change in 1977. American interest and focus remained on the Shah instead of the growing Iranian dissent. Because of this misdirected focus, US foreign policymakers "had a very poor understanding of the situation in Iran in 1977."[6] The following year, however, saw rapid growth of tension in US-Iranian relations. In the previous decade the US had engineered a coup that placed Mohammad Reza Pahlavi as the secular leader, or Shah, of the country. After the coup the US continued to provide aid to the Shah's Iran, including support to the much dreaded regime's secret police, SAVAK. A popular religious leader and politician, Ayatollah Ruhollah Khomeini, challenged the Shah's leadership and actively promoted his removal.[7] By 1979, "tensions between the United States and Iran reached a near breaking point" over human rights issues.[8]

In February 1979, the Shah was forced to leave Iran due to a wave of strikes and increasingly large popular protests for his removal. The rapid shift in power, combined with a rising religious tide led to a combustible situation. For the US, the powder keg's fuse ignited when the US embassy was first seized on 14 February 1979 and a number of staff taken hostage. With the Shah out of power and out of Iran, the new government stepped in and "quickly persuaded the rioters to release the Americans and clear out of the embassy."[9] President Carter urged American citizens to leave Iran, yet few senior national security staff recognized the gravity of shifting internal dynamics in the country. As Khomeini rose to power, a fundamental shift occurred in Iran. Western

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[6] William J. Daugherty, *In the Shadow of the Ayatollah*, (Annapolis, MD: Naval Institute Press, 2001), 60.

[7] A simplified, yet illustrative chronology of Iran-US relations has been completed by the New York Times. See James Risen, "Secrets of History, The C.I.A. in Iran, Iran-U.S. Relations: A Chronology," *New York Times*, 2000, http://partners.nytimes.com/library/world/mideast/041600iran-us-timeline.html.

[8] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 6.

[9] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 7.

intelligence failed to recognize "the awakening giant of traditional Islam, a grassroots rebellion against the secular, modern world."[10]  President Carter's admittance of the Shah into the US for medical treatment aggravated the revolutionary leaders' contempt for the West.  It would not take long for the contempt to boil over into action.

On 4 November 1979, a group of approximately 500 students led by three young men approached the US Embassy in Tehran.  The students planned to "storm the hated U.S. Embassy... occupy it for three days, and from it issue a series of communiqués that would explain Iran's grievances against America."[11]  Instead, the powder keg exploded. The ordeal would last for 444 days with hostages and hostage takers stuck within the embassy.

Within two days of the seizure of the Embassy and its staff, senior Pentagon leaders received orders from the Executive branch to begin planning.  The orders were rather ambiguous, requiring a plan "for a rescue mission, or retaliatory strikes if the hostages were harmed."[12]  A small group within the Pentagon immediately began the process of collecting intelligence and devising options for a military response. Recognizing the need to designate a joint task force commander, General Edward "Shy" Meyer, Army Chief of Staff, recommended Major General James Vaught for the position.  On 12 November, General Vaught received his tasking to assume duties as the joint task force commander. General Vaught "was known throughout the army for his exceptional ability to lead men in combat"[13] and "had an appreciation for raid planning."[14]

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[10] Mark Bowden, *Guests of the Ayatollah*, (New York, NY: Atlantic Monthly Press, 2006), 120.

[11] Mark Bowden, *Guests of the Ayatollah*, (New York, NY: Atlantic Monthly Press, 2006), 9.

[12] Richard A. Radvanyi, "Operation Eagle Claw – Lessons Learned" (master's thesis, United States Marine Corps Command and Staff College, 2001), 1.

[13] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 18.

[14] Rod Lenahan, *Crippled Eagle: A Historical Perspective of U.S. Special Operations 1976-1996*, (Charleston, SC: Narwhal Press, 1998), 34.

Under Vaught's direction, the initial planning group grew in size. What was initially "the nucleus [of the] JTF staff" expanded to include operational planners and experts throughout the respective services.[15] As the plan to infiltrate a modest-sized team of Delta Force rescuers into Tehran, secure the hostages, and then return to the US evolved, so would the size and complexity of the operation.

Delta Force had only recently obtained operational status within the U.S. Army. The Delta Force commander, Colonel Charles "Charlie" Beckwith, began planning and training for the rescue mission. Beckwith had a number of qualities that suited him for the command and the mission. He was "plain-spoken and hard-bitten... [and] best known for his specialty of unconventional warfare."[16] Beckwith's influence and personality would assist Delta in its rapid acquisition of equipment and support necessary to conduct the planning and training process. The entire JTF needed every bit of support possible; the mission was highly complex and high risk.

The JTF components faced several logistical problems from the outset. A significant issue arose from the lack of "U.S. bases or negotiated basing rights within striking distance of Iran." In addition, "intelligence was nonexistent."[17] Most of these issues could, however, overcome by airpower. Airpower would be required to support the infiltration, as well as provide fire support and the exfiltratration of forces out of Iran. Importantly, airpower provided Delta Force with mobility, or the capability to quickly cover the vast distances of Iran's deserts, as well as provide supporting fires during the embassy assault portion of the rescue mission.

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[15] Department of Defense, *Iran Hostage Rescue Mission Report*, (Washington DC: Joint Chiefs of Staff, August 1980), 15.

[16] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 27.

[17] William M. Steele, *The Iranian Hostage Rescue Mission: A Case Study*, (master's thesis, National War College, 1984), 3-4.

The JTF and State Department planners continued to negotiate basing rights for the hostage rescue forces. Aircraft expanded the range of options due to their ability to refuel in air. Despite this ability, the rescue force still required basing and logistical support within the region. The JTF required a securable location within the region to assemble, prepare, and launch from to begin the mission. Planners identified Turkey as an optimal location, but "were persistently rebuffed" in their attempts to secure basing.[18]

Navy planners on the JTF staff proposed an alternative. An US Navy (USN) aircraft carrier would provide a feasible option, as they could bring Delta Force and the helicopters closer to Iran than any available land base. The planners noted that, "we already had Carrier Task Force 70 in the Indian Ocean."[19] This basing option, however, did not come without its own issues. Selecting the carrier as the launch and recovery basing option required the selection of a different helicopter. The original JTF plan envisioned the use of long-range US Army CH-47 Chinooks. Given the heavy lift requirement for operators and supplies, concern of Soviet intelligence collection, and necessity to preserve OPSEC, the JTF planners decided to use USN RH-53D Sea Stallions instead.

Five RH-53D helicopters would be required to provide the necessary heavy lift capability to transport Beckwith's force to and from the embassy in Tehran in one trip. The RH-53's were the best choice, as they "had foldable rotor blades and tail boom so it could be stored below deck on a carrier…[and] the clincher for the Sea Stallion was that we could make up a good cover story (mine clearing) to explain their presence in the Indian Ocean."[20] With the OPSEC concerns addressed, the task force began the process of securing eight RH-53's and aircrew to ensure minimum rotary wing lift requirements would be met during

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[18] James, H. Kyle, *The Guts to try*, (New York, NY: Orion Books, 1990), 45.

[19] James, H. Kyle, *The Guts to try*, (New York, NY: Orion Books, 1990), 47.

[20] James, H. Kyle, *The Guts to try*, (New York, NY: Orion Books, 1990), 47-48.

execution.[21]  The selection of aircrew to man the helicopters, however, would prove to be problematic.

The air mission commander (AMC) for the rescue operation, Colonel James Kyle, "expected special-ops-qualified air force HH-53 pilots flying the navy's RH-53."[22]  Instead, "the navy would supply the pilots and crew chiefs, augmented by Marine copilots and door gunners."[23]  The selection and training of helicopter crews proved to be contentious throughout the RICE BOWL planning process.  Navy and Marine Corps pilots were not familiar with the demands of extended low-level flights and assault operations.  As one author notes, "Special ops missions require more than outstanding flying skills; they require men and (now) women who also have certain psychological attributes and certain physical training and skills."[24] The JTF replaced several pilots for those with even the slightest experience in helicopter assault operations.

The final assault plan involved considerable use of airpower.  To minimize risk within the mission and maximize the helicopter's range, Kyle convinced Beckwith to fly his assaulters into the desert-landing site using heavy-lift aircraft.  The assault teams would fly on USAF MC-130's to a desert site and then transload to the RH-53's.  The desert site, known in mission planning as Desert One, would provide the helicopters with the necessary refueling stop.  After Delta's transfer to the RH-53's, they would continue to a second holdover location, Desert Two, to wait for the next cycle of darkness.  On the second night of the mission, the assault teams would storm the embassy and rescue the hostages, while receiving support of overhead AC-130H gunships.  After rescuing the

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[21] It is common to use more than necessary in order to ensure minimums are met. In this case, eight helicopters were determined as the requirement to ensure six would be available at Desert One.  Six at Desert One allowed for the assumption that five would be available to extract the team and hostages from the embassy the following day.

[22] Quoted in William J. Daugherty, "In the Shadow of the Ayatollah," in James, H. Kyle, *The Guts to try*, (New York, NY: Orion Books, 1990), 119-123.

[23] James, H. Kyle, *The Guts to try*, (New York, NY: Orion Books, 1990), 48.

[24] William J. Daugherty, *In the Shadow of the Ayatollah*, (Annapolis, MD: Naval Institute Press, 2001), 188.

hostages, Delta Force would leave Tehran on the RH-53's and transload to C-141 Starlifter's to fly the hostages back to the US.

Each phase of the plan required extensive training. Unfortunately, "there was no formal training plan; each commander was responsible for preparing his forces for the combined Joint Task Force rehearsals."[25] For Delta Force, this meant "Five months of intensive scripting. Preparation down to the most minute detail. Dry run after dry run until Delta could have found its way through the embassy compound blindfolded."[26] In similar fashion, aircrews practiced short field landings, low-level flying, and flying on night vision goggles (NVGs).

The JTF components rehearsed their element of the rescue mission several times. Those rehearsals, however, were not standardized. Each rehearsal practiced a different phase or change to the plan. For example, the mission evolved quickly from airfield seizure, to airdrop of fuel blivets, to a desert landing. At no time was a routine training regime established. Additionally, command and control of the JTF overall was not exercised during the rehearsals. In fact, the training was characterized by considerable confusion. The addition of US Air Force Lieutenant General Philip Gast as the "'special consultant'" for the task force created additional confusion.[27] Lieutenant General Gast's "senior rank [to Major General Vaught] generated confusion in the chain of command, which affected the training of the helicopter force."[28] Aircrews were unsure of the command hierarchy. Put simply, they did not know who was in charge of the mission overall. The problems extended down the command chain.

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[25] James, H. Kyle, *The Guts to try*, (New York, NY: Orion Books, 1990), 71.

[26] Jerry Boykin, *Never Surrender: A Soldier's Journey to the Crossroads of Faith and Freedom*, (New York, NY: FaithWords, 2008), 121.

[27] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 21.

[28] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 23.

As planning for RICE BOWL grew in scale and complexity, so too did the number of support commanders. In an unusual manner, a leader who had no officially designation or endorsement became directly involved in helicopter training.[29] Ordered to assist with the helicopter portion of the plan, Colonel Charles H. Pitman, USMC, "assumed a de facto status of leadership simply because no one else had been officially assigned. In this informal role, Pitman's responsibility for helicopter training inevitably conflicted with that of General Gast."[30] Pittman was "an experienced pilot... strong-minded and it was obvious that he was respected by those who knew him. He got along well with Jim Kyle."[31] Pittman's favorable relationship with Kyle smoothed over some of the confusion created by his informal role.

Another unofficial leader emerged in yet an even more bizarre and confusing manner. Pitman's informal role and "status was further clouded by the naming of Lieutenant Colonel Edward R. Seiffert, USMC, as helicopter flight leader. Presumably, he was subordinate to Colonel Pitman... yet General Vaught apparently never formally spelled out the command chain from himself and General Gast to Colonel Pitman and Lieutenant Colonel Seiffert."[32] The AMC, Kyle, is noticeably absent in this informal command chain. Directed by General Vaught to command the air, Kyle had no authority over the helicopter force, either in training or in execution.

Kyle came to Vaught at the recommendation of General Taylor. Kyle "had flown AC-130 gunships during the Vietnam War... and had worked with Taylor when had both been on the PACAF staff." He was

[29] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 23-25.

[30] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 25.

[31] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 225.

[32] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 25.

well respected by Taylor for his keen mind and his analytical approach to problem solving."[33]  Kyle managed to develop a good relationship with Pittman and Beckwith.  In doing so, he was able to coordinate and work with the helicopter and ground force to smooth operations.

For the operational phase of the mission, EAGLE CLAW, command at Desert One would be given to Kyle.  In a discussion between Beckwith and Gen Vaught, both agreed, "Jim Kyle, by rights, oughta have it [command]. Most of the activities at Desert One are air-related."[34]  In his book, Beckwith asserts that this was the correct decision; he "liked and trusted Jim Kyle… Desert One would be in good hands."[35]  Although this decision is not surprising, it illustrates two items of interest.  First, superiors and fellow commanders respected and trusted Kyle.  Second, Kyle would act as the on-scene commander at Desert One because much of EAGLE CLAW was air-related.  Kyle had command authority of the three MC-130s and three EC-130s, however, it did not extend to the eight RH-53's.  For this phase of the operation, Kyle did not own the preponderance of air, nor would he continue with the force into the second night's operations.  Partially as a result, the second night of the rescue mission would not take place.

## EAGLE CLAW

As the hostage rescue force moved to their respective stage locations, General Vaught discussed plans for his location during the mission with Beckwith.  Beckwith felt that "it was important he [Vaught] position himself where he could best influence and support the whole mission. It was my judgment he should be in Egypt the first and second

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[33] Jerry L. Thigpen, *The Praetorian STARShip: The untold story of the Combat* Talon, (Maxwell AFB, AL: Air University Press, 2001), 182.

[34] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 248.

[35] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 248.

nights."[36]  The JTF commander's decision to remain behind is not abnormal.  However, as the author of a Naval War College paper points out, "Beckwith was not even designated the Ground Force Commander, which was retained by Vaught, who was located *1000 miles* away in Qena, Egypt!" (emphasis in original).[37]  General Gast, now officially recognized as Vaught's deputy JTF commander, deployed to Oman with Beckwith and Kyle.  Between Beckwith's lack of command authority over the ground force, and Kyle's lack of command and control over the helicopter force, the start of EAGLE CLAW was beginning with an abnormal command and control structure.[38]

The reception of all forces took several days, but after all forces arrived at their respective staging bases, the JTF had little time to wait. After a few intelligence and weather updates, "at 241230Z April 1980, General Vaught issued the… execute order by message to all JTF force."[39]  That evening, the C-130's and all eight RH-53's flew into the darkness of Iran's desert.  Kyle and Beckwith were relieved to hear all RH-53's were enroute.

Approximately two hours into the flight from the USS Nimitz, "a cockpit warning light in helo 6 flashed a signal of a possible rotor failure. This signal, known as a BIM (blade inspection method), forced the pilot to land inspect the rotor."[40]  The number eight helicopter in the formation landed to assist and, after the crew of number six sanitized the

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[36] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 248-249.

[37] James M. Mis, From Son Tay to Desert One: Lessons Unlearned, (master's thesis, Naval War College, 1998), 9.

[38] Beckwith's Delta force was to be accompanied by 83 Rangers.  The rangers were to secure the airfield at Desert One and, later, at Manzariyeh.  See Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 63.

[39] Rod Lenahan, *Crippled Eagle: A Historical Perspective of U.S. Special Operations 1976-1996*, (Charleston, SC: Narwhal Press, 1998), 130.

[40] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 69.

helicopter of all classified materials and boarded number eight, lifted off to follow the formation. Seven helicopters continued toward Desert One.

After another two hours of flight, number five helicopter experienced an overheat condition. After flying through a treacherous dust and low visibility system known as a haboob, "a motor that operated a blower for cooling air to the aircraft power supply had overheated and failed."[41] Pitman, piloting the helicopter, decided to turn back and recover on the Nimitz. The assault force now had only six helicopters available, the minimum required to conduct the mission.

The C-130's arrived at Desert One on time and prepared to conduct refueling and transload operations. Due to the requirement to maintain radio silence, both Kyle and Beckwith were unaware of the two helicopter aborts. Neither of them knew that the helicopters were late. After fifty-five anxious minutes, the first helicopter arrived. The last helicopter arrived eighty-five minutes late. Given the time necessary to refuel the helicopters, and the fact that the force was down to the minimum number of helicopters required, Beckwith's anxiety gradually increased. Beckwith was growing impatient, as "darkness was running out; and the situation did not look encouraging."[42] The situation deteriorated even further when a third helicopter (Helo 2) loss its first-stage hydraulic system. Below the minimum required for the mission, Beckwith and Kyle quickly conferred and agreed to abide by the minimum force requirement set by the JTF.

Kyle radioed the decision to abort up the chain. General Vaught asked Beckwith to "consider going on with five... [making Beckwith] even angrier."[43] Sticking to the plan, General Vaught, the CJCS, and

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[41] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 73.

[42] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 83.

[43] Beckwith relates that this request caused him to loss respect for General Vaught. The plan, agreed upon ever since rehearsals began dictated six helicopters to continue. Beckwith argues that everyone knew

President agreed to Kyle and Beckwith's decision.  Beckwith's force began to load onto the C-130's to return to base.  The remaining helicopters continued to refuel as full tanks would be required to fly back to the USS Nimitz.

Disaster struck swiftly and unexpectedly.  It was in this moment of noise and swirling dust that helo 3, in an effort to reposition for fueling, lifted up, "moved left, then right, then banked to the right, crashing into a C-130."[44]  The effects were immediate as both aircraft burst into flames and munitions exploded.  Aircrew and soldiers attempted to leave the burning aircraft.  All but eight aircrew members escaped the deadly inferno.

As the fire raged, munitions continued to explode.  The explosions caused damage to many of the remaining aircraft: "Projectiles from the exploding munitions ripped holes in the three nearest helicopters leaving only two untouched. One of these was Number Two, the bird with the hydraulic failure."[45]  Kyle directed all helicopter crewmembers to board any C-130 and prepare for immediate departure.  Classified materials remained in the helicopters, arguably "because of security, Colonel Kyle was uninformed."[46]  Kyle requested an air strike to destroy the damaged helicopters.  His request, however was never approved as, "COMJTF and General Jones [CJCS] judged that there was nothing to be gained, and the act of conducting 'bombing' missions in Iran and the danger to… the American hostages in Tehran did not warrant such a measure."[47]

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agreed to it.  See Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 277.

[44] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 87.

[45] Lenahan refers to the helicopter with the broken hydraulic system as number two.  Ryan refers to the same helicopter as Helo 3.  See Rod Lenahan, *Crippled Eagle: A Historical Perspective of U.S. Special Operations 1976-1996*, (Charleston, SC: Narwhal Press, 1998), 144.

[46] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 93.

[47] Rod Lenahan, *Crippled Eagle: A Historical Perspective of U.S. Special Operations 1976-1996*, (Charleston, SC: Narwhal Press, 1998), 145.

The three C-130's departed Desert One and headed to Masirah. From there, the C-130's transloaded the wounded onto waiting C-141 aircraft bound for medical facilities in Egypt. The "nonwounded boarded a C-141 and were flown to Egypt and thence home."[48]

The mission had ended in disaster. President Carter addressed the nation, taking full responsibility for the failure of the rescue attempt. The failure continued to call into question American leadership of the Free World, still weak from the withdrawal from Vietnam, and effectively ruined Carter's presidency. As is common in military operations of high importance, "the Chairman, with the concurrence of the SECDEF, convened a multi-service panel of senior military officers to examine the events of the mission and the preparations leading up to it."[49] The panel produced the JCS Rescue Mission Report, commonly referred to as the Holloway Commission Report.

## The Holloway Commission

Shortly after Desert One, the Hollow Commission began its investigation into the chain of events leading to the tragedy. The Commission's "purpose was to independently appraise the rescue attempt so we could recommend improvements in planning, organizing, coordinating, directing, and controlling any such operations in the future."[50] The Commission's members identified several issues and shortfalls, however, "Because of its narrow mandate, the Holloway panel was required to leave many questions unanswered."[51]

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[48] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 91.

[49] Rod Lenahan, *Crippled Eagle: A Historical Perspective of U.S. Special Operations 1976-1996*, (Charleston, SC: Narwhal Press, 1998), 155.

[50] Department of Defense, *Iran Hostage Rescue Mission Report*, (Washington DC: Joint Chiefs of Staff, August 1980), 1.

[51] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 4. The results of the Holloway Commission are tenuous. Kyle "offers much criticism" and Beckwith "does not mention the Holloway Commission once." See Chad Kohalyk*, Desert One: From context to consequences*, (Kingston, Ontario: Royal Military College, November 2006): 2, http://www.scribd.com/doc/24560894/Desert-One-From-context-to-consequences; James, H. Kyle, *The*

The Commission's most significant findings were:

The concept of a small clandestine operation was valid and consistent with national policy objectives. It offered the best chance of getting the hostages out alive and the least danger of a war with Iran.

The operation was feasible. It probably represented the plan with the best chance of success under the circumstances, and the decision to execute was justified.

The rescue mission was a high-risk operation. People and equipment were called on to perform at the upper limits of human capacity and equipment capability.

The first realistic capability to successfully accomplish the rescue of hostages was reached at the end of March.

OPSEC [Operational Security] was an overriding requirement for a successful operation. Success was totally dependent upon maintaining secrecy.

Command and control was excellent at the upper echelons, but became more tenuous and fragile at the intermediate levels. Command relationships below the Commander, JTF [Joint Task Force], were not clearly emphasized in some cases and were susceptible to misunderstandings under pressure.

External resources adequately supported the JTF and were not a limiting factor.

Planning was adequate except for a number of backup helicopters and provisions for weather contingencies. A larger helicopter force and better provisions for weather penetration would have increased the probability of mission success.

Preparation for the mission was adequate except for the lack of a comprehensive, full-scale training exercise. Operational readiness of the force would have benefited from a full-dress rehearsal. Command and control weaknesses probably would have surfaced and been ironed out.

*Guts to try*, (New York, NY: Orion Books, 1990); and Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983).

Two factors combined to directly cause the mission abort: unexpected helicopter failure rate and low-visibility flight conditions en route to Desert One.[52]

Of these findings, three themes are recurring in contemporary operations: the requirement to preserve OPSEC at the expense of information sharing, the creation of ad-hoc command and control structures, and, the lack of a comprehensive, full-scale rehearsals for high-risk missions.[53]

The need to maintain OPSEC during RICE BOWL led to stringent compartmentalization. Members of the JTF were unaware of the full mission details or even the command hierarchy. The commanders "accomplished their own training at different locations. They were brought together only for joint rehearsals and, even then, direct contact between participants and different elements was not permitted."[54] As Ryan notes, "General Vaught was responsible for preserving security by ensuring that no one group was aware of operational details of another unit unless there was an absolute need to know."[55]

Withholding critical information becomes a significant linchpin when the situation changes. For example, "the weather team rarely—if ever—spoke to the pilots."[56] The "weather team had identified hazardous weather, including suspended dust... yet both the helicopter and C-130 pilots... had not been informed of this phenomenon. For reasons of

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[52] Department of Defense, *Iran Hostage Rescue Mission Report*, (Washington DC: Joint Chiefs of Staff, August 1980), 2.

[53] Several scholars come to the same conclusion. One author succinctly added the "lack of comprehensive plans review and even of a detailed written plan for the mission [and the] inadequate exchange of information" as identified problems. See Abraham A. Ribicoff, "Lessons and Conclusions," in *American Hostages in Iran*, ed. Paul H. Kreisberg (New Haven, CT: Yale University Press, 1985), 387.

[54] William M. Steele*, The Iranian Hostage Rescue Mission: A Case Study*, (master's thesis, National War College, 1984), 14.

[55] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 19-20.

[56] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 72.

security, the pilots were not shown the operations plan with its weather annex."[57]

The lack of information flow weighed in on each commander's perception of risk and evaluation of the mission.  Risk and complexity increased as the task force grew in size.  As the JTF grew, it included each branch of Service and their forces were intermixed but training in separate locations.  The JTF was not truly joint, but, "There was some suspicion at the time that there were those in the JCS who wanted to make sure *each of the services had a piece of the action*" (emphasis in original).[58]

Integrating multiple forces in any JTF is a difficult task for a commander.  General "Vaught's experience as a battle-oriented officer did not prove sufficient for the planning of a complicated operation involving four services as well as sensitive dealings with the White House."[59]  For unknown reasons, Vaught complicated the matter by creating "an ad hoc affair. We went out, found bits and pieces, people and equipment, brought them together occasionally and then asked them to perform a highly complex mission. The parts all performed, but they didn't necessarily perform as a team. Nor did they have the same motivation."[60]  Occasionally bringing the team together was problematic.  In fact, "The first time that all the participants actually worked together was during the rescue operation itself!"[61]

A JTF structure existed from the beginning of the requirement to plan a rescue mission.  Vaught's requirement to maintain strict OPSEC

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[57] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 72.

[58] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 225.

[59] Paul B. Ryan, *The Iranian Rescue Mission: Why it Failed*, (Annapolis, MD: United States Naval Institute, 1985), 18.

[60] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 295.

[61] Richard A. Radvanyi, "Operation Eagle Claw – Lessons Learned" (master's thesis, United States Marine Corps Command and Staff College, 2001), 10.

resulted in a new JTF with compartmented planning and execution cells. By segregating the team members, Vaught created confusion and misunderstanding. Task force members did not understand the command structure, know who could make decisions, or who was even involved. Given that Vaught deviated from the existing JTF structure, he should have clearly articulated his JTF's command hierarchy.

It is likely that Vaught was not aware of the confusion occurring at lower levels. The Holloway Commission found "The decision process during planning and the command and control organization during execution of the Iran hostage rescue mission afforded clear lines of authority from the President to the appropriate echelon. From COMJTF downward, command channels were less well defined in some areas and only implied in others."[62] Failure to define and articulate the lower command structure directly affected the mission. It is at this level that tactical events, particularly the actions at Desert One, occurred. The Holloway Commission also found "key personnel and those with critical functions were not identified for ease of recognition. For example, when the Desert One on-scene commander's name surfaced during post-mission interviews with helicopter pilots, they stated that, in some cases, they did not know or recognize the authority of those giving orders at Desert One. In this regard, instructions to evacuate helicopters and board the C-130s had to be questioned to determine the identity of those giving the orders to establish their proper authority."[63]

A full mission rehearsal would have served as a means to further integrate the force, address operational issues, and identify key personnel, including the overall C2 structure of the JTF. The Holloway Commission reported "Preparation for the mission was adequate except

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[62] Department of Defense, *Iran Hostage Rescue Mission Report*, (Washington DC: Joint Chiefs of Staff, August 1980), 16.

[63] Department of Defense, *Iran Hostage Rescue Mission Report*, (Washington DC: Joint Chiefs of Staff, August 1980), 50.

for the lack of a comprehensive, full-scale training exercise. Operational readiness of the force would have benefited from a full-dress rehearsal. Command and control weaknesses probably would have surfaced and been ironed out."[64]

The rescue attempt was a highly complex mission and ultimately a high-risk effort. Special operations often occur on the high-risk portion of the spectrum of war. This, however, does not alleviate the responsibility of commanders to mitigate risk. Complexity can exponentially increase risk and operates counter to a basic principle of warfare: simplicity. As Steele notes, "A simple plan understood by everyone and executed vigorously usually succeeds. Conversely, complex plans are understood by few... Complexity represents the antithesis of victory, simplicity its failure!"[65]

The Holloway Commission Report has had profound effects on the training, equipping, and organizing of Special Operations Forces (SOF). Although it identified several issues and shortfalls, the long-term impact of its recommendations continues today. The Report "prompted the Defense Department to create a counterterrorist joint task force (CJTF) and the Special Operations Advisory Panel."[66] In recommending these initiatives, the commission attempted to address "the inadequacies in joint special operations planning and training."[67]

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[64] Department of Defense, *Iran Hostage Rescue Mission Report*, (Washington DC: Joint Chiefs of Staff, August 1980), 3.

[65] William M. Steele, *The Iranian Hostage Rescue Mission: A Case Study*, (master's thesis, National War College, 1984), 30.

[66] Quoted in Susan L. Murray, "The United States Marine Corps and Special Operations: A Nineteen Year Convergence Toward a Marine Component," in United States Special Operations Command, *United States Special Operations Command History: 15th Anniversary* (Tampa: U.S. Special Operations Command, 2002), 3.

[67] Quoted in Susan L. Murray, "The United States Marine Corps and Special Operations: A Nineteen Year Convergence Toward a Marine Component," in U.S. Government Accounting Office, Report to the Chairman, Senate Armed Services Committee on Special Operations Command; Progress in Implementing Legislative Mandates, (Washington, D.C.: U.S. Government Accounting Office, 28 September 1990), 5.

## Conclusion

The recently operational Delta Force could not have asked for a more difficult first mission than EAGLE CLAW. The hostage rescue mission "was not only in a non-permissive environment with no support, but also the local government was going to be the enemy. Not only that, but the embassy itself was buried in a city of five million people who hated America."[68] There is no doubt that the complexity and risk associated with EAGLE CLAW was high. The Holloway Commission noted, "The mission had to be considered high risk because people and equipment were called upon to perform at the upper limits of human capacity and equipment capability. There was little margin to compensate for mistakes or plain bad luck."[69]

Mistakes did occur. The mission ended in tragedy. However, to consider the entire mission a failure is a mistake. Beckwith considered "The command and control mechanism that the mission used… to be viable and responsive. During the time at Desert One, it had been able to act rapidly."[70] Beckwith's comment does not alleviate the issues inherent in the complex, ad-hoc command and control structure. His comment does, however, illustrate the rapid information flow through satellite communication systems to link the upper echelons together, from Kyle to Vaught to Carter.

The rapid acquisition and employment of new equipment was in itself a success. The Holloway Commission Report emphasized that each service has unique capabilities, but a specialized group of soldiers, sailors, airmen, and marines must be formed to operate together habitually, in order to execute high risk missions. This is arguably the

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[68] Jerry Boykin, *Never Surrender: A Soldier's Journey to the Crossroads of Faith and Freedom*, (New York, NY: FaithWords, 2008), 110.

[69] Department of Defense, *Iran Hostage Rescue Mission Report*, (Washington DC: Joint Chiefs of Staff, August 1980), 58.

[70] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 297.

most significant lesson learned.  Habitual training and rehearsals form relationships, both at the command and personal level.  In a high-risk, complex and dynamic environment, relationships become critical to ensure the success of military operations.

The two commanders at Desert One, regardless of their lack of command authority (as the GFC for Beckwith and having authority over the helicopters for Kyle), respected and trusted each other. In fact, Beckwith and Kyle were the only two commanders with SOF experience. Beckwith knew that the Desert One site would be in good hands.  In the end, Beckwith stated, "Jim Kyle and the Air Force did a great job. Delta's arrival had been handled very smoothly, just like in the rehearsals."[71] The same relationship did not exist between Delta and the Rangers or between fixed-wing and rotary-wing air commanders.  Kyle was not recognized or giving the authority to command all air forces.

Neither Kyle nor Beckwith developed a relationship with Seiffert. Kyle "basically blamed Seiffert and the helicopter pilots for not climbing out of the dust cloud, for not using their radios to keep the formation intact, and for the three helicopter aborts."[72]  Beckwith "openly blamed the helicopter pilots immediately after the mission."[73]  For Beckwith, the issue was not "mechanical problems… [but] faltering courage in the pilots."[74]  Compartmentalization and the lack of joint training made it difficult to form a relationship but they are not the causal factors.  The lack of a formal, defined, command structure further influenced the

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[71] Charlie A. Beckwith and Donald Knox, *Delta Force,* (New York, NY: Harcourt Brace Jovanovich, 1983), 271.

[72] Otto Kreisher, "Desert One," *Air Force Magazine vol 82., no 1* (January 1999), http://www.airforcemag.com/MagazineArchive/Pages/1999/January%201999/0199desertone.aspx (accessed 2 March 2014).

[73] Otto Kreisher, "Desert One," *Air Force Magazine vol 82., no 1* (January 1999), http://www.airforcemag.com/MagazineArchive/Pages/1999/January%201999/0199desertone.aspx (accessed 2 March 2014).

[74] Beckwith was vocal in expressing this opinion to Kyle.  He further commented, "You talk their language—I don't" when telling Kyle to talk to Seiffert.  See Mark Bowden, *Guests of the Ayatollah*, (New York, NY: Atlantic Monthly Press, 2006), 453.

friction between the commanders.  Weight of effort and the preponderance of force did not appear as a calculus in Vaught's decisions or the command structure.  Joint doctrine was virtually nonexistent at the time, but a standing JTF architecture existed as did lessons learned from past operations.  Additionally, Vaught, a commander who did not have SOF experience, had the opportunity to surround himself (through staff and commanders) with those who did.  Special operations missions had a legacy born of the Air Commandos and one upheld by the planners, assaulters, and aircrew during the Son Tay Raid that took place in North Vietnam in November 1970.

The EAGLE CLAW case study highlights the failure of senior leaders to officially develop, assign, and articulate command relationships.  A JTF must have a clearly defined command structure with assigned command relationships.  A supporting or supported structure did not exist, instead, the mission was broken into individual segments and phases designed to come together as the mission occurred.  The air mission commander did not have command of all air assets, costing time, decreasing effectiveness, and increasing risk which culminated in disaster at Desert One.

As a result of the failure at Desert One, several defense insiders and outsiders petitioned for reform to make US military forces more effective.  Their petitions led to the passage of the Goldwater-Nichols Defense Reorganization Act in 1986.  Desert One, in many ways, represented America's failure to respond rapidly with joint forces. Goldwater-Nichols mandated a number of steps to increase the "jointness" of US forces. While largely successful, there is still room for improvement.  As the next case study explores, confusion still exists regarding command structures and relationships even in a joint force.

# Chapter 5

## Case Study III: Operation ODYSSEY DAWN

*There will be no boots on the ground.*

Defense Secretary Robert M. Gates, 31 Mar 2011.

On March 19, 2011, a US-led multinational coalition force launched combat missions in response to Muammar al-Qaddafi's attacks against Libyan citizens and anti-Qaddafi forces. Known as Operation ODYSSEY DAWN (OOD), U.S. Africa Command (USAFRICOM) conducted precise targeting of Qaddafi's forces, established and maintained a maritime arms embargo, and enforced a no-fly zone (NFZ) over Libya. On 31 March, OOD transitioned into a North Atlantic Treaty Organization (NATO)-led mission, known as UNIFIED PROTECTOR.

This chapter focuses on the twelve days of US-led Operation ODYSSEY DAWN. While considered a success, the operation faced serious challenges. The staff of a relatively new Geographic Combatant Command (GCC), USAFRICOM, had to plan air and maritime combat operations, establish a joint task force (JTF), and enable a transition to NATO led operations.[1] Unlike other established GCC's, USAFRICOM did not have many assigned resources necessary to conduct combat operations. Instead, USAFRICOM's charter was focused heavily on stability and humanitarian operations on the continent of Africa. The civilian-dominated USAFRICOM staff did not even reside on the African continent. Additionally, operations in Libya had to compete for military resources against ongoing operations in Afghanistan and Iraq.

The OOD case study provides a contemporary example of command relationships in the joint environment. Although operations

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[1] Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn: Command and Control,* (Washington DC: National Defense University Press, 2012), 145.

focused on air and maritime domains, all Services were involved and integrated into USAFRICOM's staff.  In this case, personal relationships may have been so effective that an overreliance on direct communication and verbal orders supplanted traditional methods of information dissemination.  Without written orders, staff officers relied on word of mouth and email guidance.[2]  The result was an inconsistent and confused approach to the operational employment of kinetic forces.[3]  A confused, misunderstood understanding of command relationships subsequently ensued.

This chapter draws upon the limited resources available for this recent operation.  Most sources on the conflict focus on NATO operations as part of Operation UNIFIED PROTECTOR as opposed to Operation ODYSSEY DAWN.  This chapter utilizes a number of unclassified assessments and evaluations published through the Department of Defense, in addition to primary sources including documentaries and interviews.  The chapter opens with a short narrative of the events leading to Operation ODYSSEY DAWN.  Next, it examines the key lessons learned from the command and control aspects of the operation.  Finally, this chapter analyses the influence of each of the five factors identified in Chapter Two.

### Precursor to Conflict

A number of events and factors colluded during the winter of 2010 in the Middle East against Libyan dictator Muammar al-Qaddafi.  A wave of protests and demonstrations began in Tunisia, arguably stemming

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[2] Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn: Command and Control,* (Washington DC: National Defense University Press, 2012), 152.  According to Gen Woodward, contributing factors were the speed of communications, decision making, and rapid evolution of the situation.  The planning, preparation, and execution of the operation progressed quickly.  She added it was difficult to get adequate objectives and assumptions passed down and across the chain of command.  Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[3] Michael W. Kometer and Stephen E. Wright, "Winning in Libya: By Design or Default," (Institut Francais des Relations Internationales (IFRI), Paris, FR: January 2013), 15.

from a number of political and social inequalities surrounding corruption and repression. The mass demonstrations, fed by social media and instant communications, spread across the Middle East as citizenry demanded governmental reforms and an end to oppressive regimes throughout the region. The Arab Spring, or Arab Awakening, swept the region, arriving in Libya in the early spring of 2011.[4]

The arrival of the Arab Spring in Libya yielded more than protests and demonstrations. A group of Libyan rebels seized the cities of Benghazi and Zawiyah in defiance of Qaddafi's oppressive rule.[5] Without hesitation, Qaddafi ordered counterattack and retaliatory strikes against known and suspected rebels, with little concern for collateral damage or protection of Libyan citizens.

International condemnation of Qaddafi's indiscriminate attacks came quickly, however, multiple appeals to end the violence failed to stop Qaddafi's forces. The UN Security Council issued Resolution (UNSCR) 1970, deploring "the gross and systematic violation of human rights, including the repression of peaceful demonstrators, expressing deep concern at the deaths of civilians, and rejecting unequivocally the incitement to hostility and violence against the civilian population made from the highest level of the Libyan government."[6] Shortly after the Resolution was adopted, the International Criminal Court (ICC) conducted an official investigation into human rights violations in Libya. The investigation produced suitable evidence to request three arrest warrants. The prosecutor found "Crimes against humanity have been

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[4] Multiple terms are used to describe the events across the Middle East, Levant, and North Africa. Al Jazeera published a useful resource with a short news summary from each of the affected countries. See Al Jazeera, "The Arab Awakening," 22 February 2011, http://www.aljazeera.com/indepth/spotlight/2011/02/201122121213770475.html, accessed 24 April 2014.

[5] Joel L. Carey, "Operation Odyssey Dawn and Lessons for the Future," (unpublished research report, Air War College, Maxwell AFB, February 2013), 2-3.

[6] United Nations Security Council, "Resolution 1970 (2011)," 26 February 2011, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1970(2011).

and continue to be committed in Libya, attacking unarmed civilians including killings and persecutions in many cities across Libya."[7]

Despite a UNSCR and an on-going ICC investigation, Qaddafi continued mass murders and repressing of rebel forces as February turned to March.  In a measure to increase the pressure on Qaddafi, the UNSC imposed an arms embargo and froze Qaddafi's overseas assets.[8] International outrage over gross human rights violations, specifically indiscriminate air strikes by Qaddafi's regimes on cities and towns, led for calls for the UN to take more drastic action.  On 17 March, the UN passed a second UNSCR.  Resolution 1973 provided for the "Protection of civilians" under the following paragraph:

> *Authorizes* Member States that have notified the Secretary-General, acting nationally or through regional organizations or arrangements, and acting in cooperation with the Secretary-General, to take all necessary measures, notwithstanding paragraph 9 of resolution 1970 (2011), to protect civilians and civilian populated areas under threat of attack in the Libyan Arab Jamahiriya, including Benghazi, while excluding a foreign occupation force of any form on any part of Libyan territory, and *requests* the Member States concerned to inform the Secretary-General immediately of the measures they take pursuant to the authorization conferred by this paragraph which shall be immediately reported to the Security Council.[9]

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[7] International Criminal Court, "ICC - The Office of the Prosecutor will request an arrest warrant against three individuals in the first Libya case. Judges will decide," 5 April 2011, http://www.icc-cpi.int/en_menus/icc/situations%20and%20cases/situations/icc0111/press%20releases/Pages/pr659.aspx

[8] Joel L. Carey, "Operation Odyssey Dawn and Lessons for the Future," (research report, Air War College, Maxwell AFB, February 2013), 5.

[9] United Nations Security Council, "Resolution 1973 (2011)," 17 March 2011, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1973(2011).

Just five days before, the Arab League had called upon the UNSC for a NFZ over Libya.[10]  With UNSCR 1973, the political and legal architecture was in place to take action.  The enforcement of a NFZ and protection of Libyan civilians began on 19 March, just two days after UNSCR 1973's creation.  A joint coalition of British and French air forces, led by the US, commenced the new operation, Operation ODYSSEY DAWN.[11]

### Planning Operation ODYSSEY DAWN

The multinational operation, ODYSSEY DAWN, launched on 19 March in a major way.  The operation began with an opening salvo of 110 Tomahawk cruise missiles and bombs dropped from US B-2 bombers, British Tornados, and French Rafale and Mirage aircraft.[12]  The use of such overwhelming combat power provided the means to meet ODYSSEY DAWN's two goals: "first, to prevent further attacks by regime forces on Libyan citizens and opposition groups, especially around Benghazi, and second, to degrade the regime's capability to resist the no-fly zone."[13]  At the same time, Vice Admiral William Fortney noted that ODYSSEY DAWN had to "shape the battle space in such a way that our partners can take the lead in execution."[14]  This last point was critical; ODYSSEY DAWN

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[10] Richard Leiby and Muhammad Mansour, "Arab League asks U.N. for no-fly zone over Libya," *The Washington Post*, 12 March 2011, http://www.washingtonpost.com/world/arab-league-asks-un-for-no-fly-zone-over-libya/2011/03/12/ABoie0R_story.html (accessed 24 March 2014).

[11] Gen Woodward emphasized that the first night was not a coalition operation.  More accurately, it involved deconfliction of US, British, and French forces conducting independent operations.  After the first night, the ATO fully integrated coalition operations.  Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[12] Jim Garamone, "Operation Takes Aim at Libyan Air Defenses," *American Forces Press Service*, 19 March 2011, http://www.defense.gov/news/newsarticle.aspx?id=63227 and Joel L. Carey, "Operation Odyssey Dawn and Lessons for the Future," (research report, Air War College, Maxwell AFB, February 2013), 1. According to Gen Woodward, the first night's operation also included F-15 and F-16CJ sorties which proved to be of vital importance to the operation.  The Wild Weasels were of critical importance and responsible for locating enemy convoys.  Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[13] Jim Garamone, "Operation Takes Aim at Libyan Air Defenses," *American Forces Press Service*, 19 March 2011, http://www.defense.gov/news/newsarticle.aspx?id=63227.

[14] Jim Garamone, "Operation Takes Aim at Libyan Air Defenses," *American Forces Press Service*, 19 March 2011, http://www.defense.gov/news/newsarticle.aspx?id=63227.

was designed as a temporary operation as NATO prepared for its assumption of leadership under the banner Operation UNIFIED PROTECTOR (OUP).  The US strategy planned for an early transition to NATO control even before operations commenced.[15]

Prior to the commencement of hostilities, USAFRICOM, JTF, and component staffs began planning with NATO allies for an expected noncombatant evacuation operation (NEO) with subsequent humanitarian assistance (HA) operations.  Planning revolved around a small military staff called in to augment USAFRICOM.  The staff devoted their time to the development of NEO and HA operations in support of the State Department, thereby minimizing the size and scope of military options and force packages.  As international will and desire to act in Libya increased, so too did the rhetoric associated with and progression of UNSC resolutions.  USAFRICOM and coalition staffs continually revised plans as UNSCR 1970 and then UNSCR 1973 emerged.[16]

The passage of UNSCR 1973 served several purposes.  Most importantly for the US and its allies, the Resolution provided a means to address Qaddafi repressive regime and loyalist forces.  The Resolution in essence authorized the use of military force.  For USAFRICOM planners, the Resolution narrowed the mission to two primary operational tasks, the establishment and enforcement of a NFZ and the protection of Libyan civilians.  In essence, the protection of civilians required planning for a

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[15] Many scholars attribute the planned transition to NATO-led operations as the key factor leading to the smooth transition from OOD to OUP.  Gen Woodward explained that it may be more accurate to consider the plan as a desire instead of a foregone conclusion.  Planning and initial execution of OOD occurred prior to NATO approval to assume leadership of the operation.  Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[16] Grant Turnbull has compiled a detailed timeline of events.  See Grant Turnbull, "Timeline of Events," in *Short War, Long Shadow: The Political and Military Legacies of the 2011 Libya Campaign*, ed. Adrian Johnson and Saqeb Mueen (London, UK: Royal United Services Institute for Defence and Security Studies, 2012), vi-viii.

"don't-move-zone" to destroy hostile radars, missiles, and command posts that could threaten allied forces and Libyan civilians.[17]

The week-long US-led operation accomplished both of the tasks. Doing so required "more than 2,100 sorties and 200 cruise-missile strikes."[18]  The evolution of operational requirements, from NEO to attack sorties, in a short period, involving three GCC's, a minimal staff, and in a multinational coalition, displays the remarkable adaptability and flexibility of US and coalition forces.  The command and control required to meet these operational requirements to conduct sorties in this unique environment was even more remarkable as the next section shows.

### Commanding and Controlling ODYSSEY DAWN

Several factors challenged the efficacy of command and control (C2) during OOD in addition to those mentioned above.  Given the lack of a clearly defined end state, USAFRICOM, JTF, and component planners had to plan against an unknown, the unspecified termination of hostilities.[19]  As already noted, planners were also forced to rely on verbal and email guidance, forcing them to devise multiple scenarios and plans.[20]  Fortunately, planners designed each scenario with a potential transition to NATO in mind.  While the US would remain instrumental, if not the primary, force provider to the coalition, a NATO-led operation served to limit the duration of USAFRICOM's warfighting C2 requirements.

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[17] Mark Thompson, "Air Boss," *Time*, 16 April 2011, http://content.time.com/time/magazine/article/0,9171,2063868,00.html.

[18] Mark Thompson, "Air Boss," *Time*, 16 April 2011, http://content.time.com/time/magazine/article/0,9171,2063868,00.html.

[19] Guidance from the White House and DOD were allegedly confusing.  The President stated the necessity for regime change while SECDEF implied the sole focus would remain on protecting civilians and providing HA for refugees.  See Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn: Command and Control,* (Washington DC: National Defense University Press, 2012), 150.

[20] Michael W. Kometer and Stephen E. Wright, "Winning in Libya: By Design or Default," (Institut Francais des Relations Internationales (IFRI), Paris, FR: January 2013), 15.

Regardless of the duration of its mission, USAFRICOM was ill-prepared to conduct kinetic operations on the African continent. USAFRICOM is a "different kind of command with a different orientation. . . . AFRICOM's mission is not to wage war, but to prevent it; not to show United States military presence, but to enhance the security forces of our partners."[21] The preponderance of staff were civilians instead of uniformed military members. The difference between military and civilian staff became apparent with the lack of experience and training to plan and prosecute complex military operations. The result was an ad hoc mixture of personnel and processes combined in short order to employ resources and assets from other GCC's.[22]

With the lack of assigned air and naval assets, USAFRICOM, as the supported command, had to rely on assets belonging to or residing within United States Europe Command (USEUCOM), United States Central Command (USCENTCOM), United States Joint Forces Command (USJFCOM), and United States Transportation Command (USTRANSCOM). The USEUCOM Chief of Staff succinctly explained the complexity of the operation, "you have kinetic effects in one GCC [geographic combatant command], generated out of another GCC, partnered with a coalition, with resources from a third GCC."[23] Coordination between three dislocated GCC's, each actively pursuing their own commitments and operations, became extremely important, if not difficult. Mitigating this challenge required a carefully crafted orchestration of scheduling and agreements. The most notable example is USAFRICOM and USEUCOM's coordination of airpower assets.

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[21] Quoted in Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn: Command and Control,* (Washington DC: National Defense University Press, 2012), 151.

[22] The ad-hoc mixture of personnel and resources is a characteristic of contingency operations. JTF's are formed in response to short-notice crises and are by definition ad hoc responses.

[23] Quoted in Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn: Command and Control,* (Washington DC: National Defense University Press, 2012), 147.

As an air-dominant operation, OOD required numerous air assets and C2 capability. Without the assigned assets, USAFRICOM's air component, 17th Air Force (AF), had to coordinate personnel assistance and the transfer of assets.[24] The 617th air operations center (AOC) provided C2 capability for 17th AF, but could merely "serve as anything other than a 'transportation command to support personnel and material transfers within the (theater).'"[25] To meet the C2 requirements for round-the-clock combat operations and the enforcement of a NFZ, 17th AF coordinated with the collocated USEUCOM air component, the 3rd AF and its 603rd AOC, to "fill the gaps in C2 capability and personnel."[26] Additionally, the 3rd AF commander, Lieutenant General Frank Gorenc, and 17th AF commander, Major General Margaret Woodward, utilized pre-arranged command agreements. The Air National Guard (ANG) units from Battle Creek, MI (217th) and Syracuse, NY (152nd) augmented the 617th and 603rd AOC's, respectively. These two units augmented the in-theater AOC's and provided habitual working relationships between Combatant Commands as well as an understanding of the environment, systems, and processes used in each respective theater.

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[24] Several scholars point out that the 17th AF consisted of a small air operations center (AOC), the 617 AOC, and a few personnel. The AOC was not capable of sustaining a 24-hour operational pace, nor did it have the systems in place to coordinate all the US only and coalition operations. See Michael W. Kometer and Stephen E. Wright, "Winning in Libya: By Design or Default," (Institut Francais des Relations Internationales (IFRI), Paris, FR: January 2013), 15. According to Gen Woodward, the CENTCOM AOC was the only true 24 hour AOC at this time. CENTCOM's 24-hour cycle was due to on-going combat operations in its area of responsibility. As a result, the CENTCOM AOC was heavily augmented with personnel not permanently assigned to it. The 603rd and 617th AOC's were conducting around-the-clock operations, however, on a much smaller scale. Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[25] Jason R. Greenleaf, "The Air War in Libya," *Air and Space Power Journal* 27, no. 2 (Spring 2013): 31, http://www.isn.ethz.ch/Digital-Library/Publications/Detail/?id=165620. According to Gen Woodward, AFAFRICA supported operations beyond that of personnel and material transfers. Kinetic operations were planned and executed within the Horn of Africa (HOA) prior to OOD. Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[26] The 603rd hosted the 617th AOC staff and coalition partners. See Michael W. Kometer and Stephen E. Wright, "Winning in Libya: By Design or Default," (Institut Francais des Relations Internationales (IFRI), Paris, FR: January 2013), 15 and Stefanie Torres, "General Ham visits air operations center responsible for Operation Odyssey Dawn air campaign," *17th Air Force Public Affairs*, 23 March 2011, http://www.usafe.af.mil/news/story.asp?id=123248095.

Perhaps the key ingredient in filling these gaps came from the relationships built between senior commanders. Prior to OOD, Gorenc and Woodward knew and worked with each other. When it came time to conduct operations, Woodward was able to integrate portions of the 3rd AOC into her AOC, as well as the support the two dedicated ANG units. The TACON arrangement provided the personnel and capability necessary to conduct 24-hour C2 for combat operations.[27]

Additionally, both US generals had explored AOC operations with coalition commanders, Lieutenant General Gilles Desclaux and Major General Patrick Charaix, the year prior during exercise Austere Challenge.[28] By sheer coincidence the generals focused in that exercise on dispersed operations and the integration of coalition command structures. The experience and development of personal relationships to investigate and design solutions to what was going to become a challenge formed the basis for cooperation and coordination during OOD. Relationship building between senior commanders' facilitated the rapid build-up of logistical supplies, the channels to maintain supplies, and the basing of air and naval forces throughout the duration of the operation.[29]

The relationships between air and coalition partners were not necessarily shared with the JTF and JFMCC commanders. Admiral Samuel J. Locklear III, JTF/CC, and Vice Admiral Harry Harris, JFMCC,

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[27] General Welsh, USAFE commander, wanted one person in charge with an all-in or nothing approach. He did not want a mixed force. The original plan provided 3rd AOC OPCON to Woodward but was quickly changed to a TACON relationship. This allowed the Gorenc the flexibility to quickly act in the European theater if necessary. Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 16 April 2014.

[28] Lt Gen Desclaux is France's commander in chief of air defense and air operations. Maj Gen Charaix is the deputy commander of the French Air Defence and Air Operations Command. Exercise Austere Challenge is a bilateral US-Israeli exercises hosted on European soil. See Michael W. Kometer and Stephen E. Wright, "Winning in Libya: By Design or Default," (Institut Francais des Relations Internationales (IFRI), Paris, FR: January 2013), 15.

[29] House Committee on Armed Services, *Operation Odyssey Dawn and U.S. Military Operations in Libya*: *Hearings before the Committee on Armed Services*, 112th Cong., 1st sess., 2011, 6.

were collocated on board the USS Mount Whitney off the Libyan coast.[30] However, the JFACC was in Ramstein AB, Germany. The AOC in Germany provided Woodward with connectivity to the individual squadrons and coalition forces, as well as other GCC's. The combined synergy of staffs provided the JFACC, much like the JTF/JFMCC staff collocation, with increased information flows and additional personnel.[31] This local synergy, however, came at a cost. The cost was the dislocation and connectivity difficulties with the JTF commander. Woodward explained, "There was one phone number to call into the [USS Mount Whitney]. It was hard having the JTF commander not collocated and on the boat. The JFMCC sat next to him, providing a consistent naval component viewpoint while the other components had less consistent access."[32] Relationships had not been pre-established, which created additional challenges for the JFACC.

Mitigating these challenges, as well as risk, is of critical importance in all operations. General Woodward established an Air Component Coordination Element (ACCE), filled by Brigadier General Michael Callan. The ACCE provided the JTF/CC with air expertise and a "means to facilitate the integration of airpower."[33] The ACCE provided a valuable C2 function, particularly given the location of the JTF/CC. The JTF/CC collocated with the JFMCC instead of at his own headquarters (HQ) or

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[30] Short biographies of the senior leaders involved in the operation can be found at: Navy Europe, "Joint Task Force: Operation ODYSSEY DAWN," http://www.naveur-navaf.navy.mil/odysseydawn/bios.html.

[31] There were disadvantages also. The JTF and JFMCC capitalized on their small staffs by streamlining critical positions. This dual-hatting of staff officers increased individual workloads and occasionally created confusion as to which authority or hat they were working under. The USS Mount Whitney exacerbated this phenomenon. The finite space resulted in a small staff with connectivity challenges, including a single phone line for the JFACC and JTF/CC to communicate over. See Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn:Command and Control,* (Washington DC: National Defense University Press, 2012), 148-149 and Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014.

[32] The challenge was increased by the lack of previous relationships. Woodward had not previously worked with either Locklear or Harris. Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014.

[33] More information regarding the ACCE can be found at: Air Force Print News Today, "Role of the Air Component Coordination Element," *Air Force Inspection* Agency, 21 June 2010, http://www.afia.af.mil/news/story_print.asp?id=123210289.

with the JFACC.  The JFACC had the greater capacity and capability to C2 forces throughout the operation.  When available, a land-based AOC will have greater connectivity and capacity then afloat operations centers. Ramstein AB was also much closer to USAFRICOM (located in Stuttgart, Germany), as opposed to the USS Mount Whitney operating in the Mediterranean Sea.  Additionally, the JFACC had the preponderance of force and was the primary weight of effort.

The JTF/CC desired a HQ based in Italy.  Due to concerns surrounding Italian approval of planning combat operations, the JTF/CC chose to collocate his HQ with the JFMCC.[34]  While this collocation capitalized on limited staff resourcing and drew upon the JTF/CC and JFMCC's shared backgrounds, it constrained the ability to effectively and efficiently C2 the operation.[35]

ODYSSEY DAWN was a unique operation for other reasons as well. Airpower was the dominant force, presenting the preponderance of the force and the weight of the effort.  Additionally, national leaders were adamant about not committing ground forces to the conflict and the air assets which were employed did not belong to USAFRICOM.[36]  The latter proved to be challenging for aircrews and planners.  Long-range missions from Europe into Africa limited on-station loiter time.[37]  The long

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[34] Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014 and Gregory K. James, Larry Holcomb, and Chad T. Manske, "Joint Task Force Odyssey Dawn: A Model for Joint Experience, Training, and Education," *Joint Forces Quarterly* 64, 1st Quarter 2012: 25, http://www.dtic.mil/dtic/tr/fulltext/u2/a575521.pdf.

[35] Some scholars argue that the staff synergy created by a collocated JTF, JFMCC, ACCE, and LNO staff proved to be successful on the USS Mount Whitney.  Admiral Locklear's multiple roles as the U.S. Naval Forces Europe (NAVEUR), U.S. Naval Forces Africa (NAVAF), and North Atlantic Treaty Organization (NATO) Allied Joint Force Command, Naples created instant credibility among the coalition.  See Gregory K. James, Larry Holcomb, and Chad T. Manske, "Joint Task Force Odyssey Dawn: A Model for Joint Experience, Training, and Education," *Joint Forces Quarterly* 64, 1st Quarter 2012: 26, http://www.dtic.mil/dtic/tr/fulltext/u2/a575521.pdf.

[36] In fact the assets were gradually reduced. Counter to nearly every previous conflict, additional assets were not provided. The JTF literally had all they were going to get. Stephen E. Wright (The School of Advanced Air and Space Studies, Maxwell AFB), in discussion with the author, 17 April 2014.

[37] One author contends that the critical lesson from OOD is "that there's simply no substitute for forward deployed forces.  Without [them]… the effort to protect Libyans from massacre would have been impossible."  How is forward basing defined, particularly without boots on the ground?  Airpower

missions also drastically increased maintenance requirements on ageing airframes.

These challenges entered into each commander's assessment of risk.  At the start of the operation, Locklear was concerned of the lack of Airborne Warning and Control System (AWACs) aircraft support.  Alternatively, Woodward was concerned with the lack of intelligence, surveillance, and reconnaissance (ISR) collection capability.  The shortage of intelligence collection and risk involved in employing deadly force, particularly release authority, weighed more heavily with Woodward.[38]  For Woodward, communicating with her JTF commander and "convincing the commander above you to accept risk" was an immense challenge.[39]  The inability to build relationships prior to the operation, the physical dislocation of component elements, and a general lack of understanding by the JTF commander regarding airpower further challenged the conduct of the operation.

Another planning factor, command and control across lines of authority, also influenced the conduct of ODYSSEY DAWN.  After action and lesson learned reports have pointed to the confusion experienced by mid-level staff officers during the operation.  Senior leaders clearly understood the command relationships, yet their staffs regularly confused the shifting lines of TACON, OPCON, and support relationships.[40]  Much of the confusion reportedly stems from the GCC boundary crossings.  USAFE aircrew did not take-off from their USAFE

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provides the capability to achieve reach, in this case across multiple GCC's and continents.  Was forward basing based upon distance, sortie duration, or on-station loiter time?  See John A. Tirpak, "Lessons From Libya," *Air Force Magazine* 94, no. 12, December 2011, http://www.airforcemag.com/MagazineArchive/Pages/2011/December%202011/1211libya.aspx.

[38] Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014.

[39] Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014.

[40] Woodward clarified that command relationships were clearly understood at the senior leader level. She observed confusion occurring between the JTF and USAFRICOM staff and had to constantly remind her staff of what supporting meant. For Woodward the issue was less about supported/supporting relationships and more about the mission requirements. Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014.

base and transfer to USAFRICOM tactical control when they crossed the geographic line between the two GCCs. Gorenc and Woodward agreed aircraft and aircrew remained OPCON to USAFE, but the JFACC would have TACON. The transfer did not occur after takeoff or when crossing the GCC boundary, but rather when units were designated to support OOD.[41] Tankers from USTRANSCOM operated in the same manner, retained by USTRANSCOM for operational control while provided to USAFRICOM for tactical control.[42]

Maritime forces followed a slightly different process. Depending on the mission and asset, they were either OPCON, TACON, or in direct support of the JTF. The structure eventually became "a complex myriad of operational/tactical control and direct support command relationships."[43] It is no wonder that confusion existed at the staff level when such a complex system of relationships was developed. In spite of the confusion and challenges, each of which were multiplied by the coordination requirements of coalition operations, Operation ODYSSEY DAWN concluded successfully and achieved its objectives. With the exception of one aircraft succumbing to mechanical failure, the JTF did not lose a single aircraft.[44] Operations were transferred to NATO control on 31 March under the banner Operation UNIFIED PROTECTOR.

## Conclusion

As a relatively new command, USAFRICOM was not prepared to conduct combat operations nearly 1200 miles away. USAFRICOM's primary mission of security force assistance and HA meant that its staff

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[41] Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[42] Quartararo et al. provide additional examples of this arrangement. See Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn: Command and Control,* (Washington DC: National Defense University Press, 2012), 148.

[43] Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn:Command and Control,* (Washington DC: National Defense University Press, 2012), 148.

[44] A single F-15E was lost, however, both aircrew members were successfully recovered. See Gregory K. James, Larry Holcomb, and Chad T. Manske, "Joint Task Force Odyssey Dawn: A Model for Joint Experience, Training, and Education," *Joint Forces Quarterly* 64, 1st Quarter 2012: 24, http://www.dtic.mil/dtic/tr/fulltext/u2/a575521.pdf.

was largely comprised of civilians.  In addition, this meant the GCC did not have the necessary architecture and staffing for traditional combat operations.  To meet its combat requirements, USAFRICOM quickly accomplished two main efforts.  First, the small contingent of uniformed military members on the USAFRICOM staff offset this disadvantage with personnel augmentation and drew upon lessons learned and personal experiences from recent operations in the USCENTCOM theater.[45] Second, USAFRICOM established a JTF.  The JTF and its supporting components relied upon augmentation from pre-arranged and directed command relationships to conduct combat operations.

The lack of clearly articulated guidance, however, created a significant challenge for USAFRICOM and JTF component commanders. The end state was not clearly articulated.  Planners and leaders knew that OOD would primarily serve as a transition to the NATO-led phase of the operation.  Beyond that, planners simply guessed as they continued to search for guidance.  The unique political requirements of ODYSSEY DAWN denied the use of soldiers in their traditional role as the preponderance of force provider.  The reliance upon airpower, in some instances, "generate[d] effects [that] outpaced coalition consensus building as to overall policy and policy objectives."[46]

At the operational and tactical level, the numerous agreements and command relationship arrangements between various assets created a confusing matrix of doctrinal relationships for staff officers to decode. The two air staffs from 3rd and 17th AF worked well and had a well-established working relationship.  The dislocated USAFRICOM and JTF staffs, however, did not have a well-defined relationship, or even reliable

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[45] USEUCOM and USCENTCOM provided much needed support, not only in physical augmentation of forces and assets, but in information and idea sharing. See Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn:Command and Control,* (Washington DC: National Defense University Press, 2012), 154.

[46] Michael W. Kometer and Stephen E. Wright, "Winning in Libya: By Design or Default," (Institut Francais des Relations Internationales (IFRI), Paris, FR: January 2013), 8.

connectivity.  The combination of these two factors often produced plans without validating their feasibility.[47]

Commanders' calculation of risk played an important part during OOD, as it does in every military operation.  Unlike collocated commands, relationships and risk appeared to have a more intimate bond than in the previous two case studies.  As Woodward succinctly explained, the challenge of convincing the JTF commander to accept risk was exacerbated by her separation and lack of a personal relationship.  She deployed an ACCE to mitigate this challenge and provide the JTF/CC with air expertise.  While the ACCE was invaluable for both components, he was not a replacement for direct communication between the JFACC and JTF commander.[48]  Dislocation makes communication much more challenging, particularly when commanders do not share a common background.  The JTF commander was a naval surface officer, with the weight of effort falling upon his JFACC for air planning and employment.

Airpower clearly dominated the operation as it provided the preponderance of force.  The NFZ and protection of civilians were air-centric operations, establishing the operation's weight of effort.  Yet the JTF commander was a Navy officer without air experience.  A leading lesson learned report suggests that the primary reason the JTF and JFMCC collocated on board the USS Mount Whitney because of "A 1954 bilateral agreement between the United States and Italy."[49]  The collocation facilitated C2 between the JTF and JFMCC, however, left the

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[47] Woodward explained that instances occurred where USAFRICOM would develop a plan built around specific air assets and then forward the plan. 17 AF was not consulted in some of these plans. Incorporating the air component into the air planning would have increased effectiveness and efficiency. Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014.

[48] The ACCE was of critical importance with Woodward building trust and respect with Locklear.  The "key to success was making the JTF commander comfortable with planned air operations."  Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 8 May 2014.

[49] Joe Quartararo Sr, Michael Rovenolt, and Randy White, *Libya's Operation Odyssey Dawn:Command and Control,* (Washington DC: National Defense University Press, 2012), 149.

JFACC, with the preponderance of force and weight of effort, dislocated from them.

The currency and short duration of OOD has left few reports, articles, or archives to study. Of those available, I have not found any that question this last point. Perhaps the coordination and staff confusion would have been further mitigated had the JTF collocated with the JFACC. More importantly, future operations will look at ODYSSEY DAWN as a viable method of airpower employment across multiple GCC's. The remarkable success of the operation can be attributed to development of personal and professional relationships between commanders. Their relationships fostered the trust and respect necessary to enable the management of a small pool of shared resources.

Yet future staff officers would be wise to consider the operational challenges and shortfalls during ODYSSEY DAWN. A key lesson learned from OOD reveals a misunderstanding and confusion surrounding command relationships. One may anticipate less confusion as doctrine and joint education evolves, however, recent operations such as ODYSSEY DAWN prove otherwise.

This observation appears to be a recurring theme. Confusion regarding command relationships is apparent in each of the three case studies. The next chapter introduces a survey conducted at Air Command and Staff College (ACSC) and the School of Advanced Air and Space Studies (SAASS). The survey attempts to determine the root cause, or casual factor, associated with this confusion.

## Chapter 6

## Survey Results

The three preceding chapters have examined historical case studies of joint operations spanning six decades. Each case study was examined according to a number of factors common to joint operations. The methodological approach in the thesis thus far has been qualitative. Comparing and contrasting historical examples, according to a framework, is useful methodologically but this approach has limitations outlined in the Introduction. To explore the subject of joint operations and perceptions of subordination further, I now look at the same issues through a quantitative approach. During the course of my research year at School of Advanced Air and Space Studies (SAASS), I developed and conducted a survey of Air Command and Staff College (ACSC) and SAASS students. This chapter presents the genesis of this survey, examines its purpose and intent, identifies key challenges which occurred during the survey design process, and summarizes the survey results. Personally I learned much about quantitative methods and survey development, as well as data gathering and analysis, during this process. Readers interested in doing surveys of their own may be interested in some of my observations. Those readers looking to explore the survey design, or delve into the raw data, statistical summaries, correlations, and regressions further should consult in Appendix I.

## Genesis of the Survey

The survey's primary intent was to determine whether a perception does, or does not exist, that airpower is perceived as subordinate to land and/or maritime forces. My experience in the joint environment led me to believe that such a perception does indeed exist but I wanted to submit this belief against objective data and analysis. I spent much of the research methods design phase giving careful consideration to the questions below to limit, to the maximum extent possible, any subjective

bias on my part.  My secondary objective was to determine if command relationships, particularly supporting and supported relationships, are contributing factors to or mitigate against any such misperceptions.  This secondary objective became my primary question to which all others connected.

Initially I looked survey audiences with various levels of experience, prior to and after command, including ACSC, SAASS, Air War College (AWC), and the respective Army and Navy FGO level service JPME schools.  As is clear from the discussion which follows, arranging to conduct surveys between services and within a service exceeded the time constraints under which I was operating.  In addition, should the survey process not yield sufficient results in time to complete the thesis, I devoted consider effort to research, writing, and analysis of the historical case studies as a hedge.  Internal coordination challenges and problems with the approval process denied me the opportunity to survey students at the AWC.  In addition, time constraints forced me to abandon survey implementation at Army and Navy schools staff and war colleges, despite some outstanding efforts by individuals in those schools and at Air University (AU).

### Survey Challenges

As mentioned above, time and survey distribution were my greatest methodological challenges.  The SAASS academic year encompasses 11 months, of which six to seven are truly available for thesis research and writing.  Students looking to conduct quantitative research should be aware that the coordination required to produce survey questions, and obtain approval of them, is just the beginning.  A stringent process of AU approval follows initial survey development.  All surveys, regardless of the Service, require an institutional review board (IRB) approval from the AU Chief Academic Officer's office.  The IRB, or waiver of the IRB, verifies that the survey passes an ethical review and the surveyor has accomplished all necessary training to conduct a survey.  The ethical

review ensures surveyors are not asking potentially compromising or morally unacceptable or inappropriate questions. Training for surveyors includes a human rights training program, as well as developing a plan to address the storage of material and survey results.

After successful completion of this initial process and training, the surveyor must prepare the survey itself in official written or electronic form. I spent numerous hours consulting quantitative methodology works, including the study of social statistics, as well as discussing my survey questions with several of the SAASS faculty to ensure the survey design was as sound as possible.[1] This portion of the process was by far the time-consuming portion of the survey design process. To construct the survey, I used an on-line software program called Allegiance. This software is not an officially sanctioned DOD or USAF survey software, however, it is AU's enterprise software and has been funded for certification.[2] The software allows the survey to reside within a secure environment to protect privacy, in accordance with the Human Subjects Protection Program.[3]

The next step in the process, after receiving IRB approval, was to obtain approval from the Deans of Research at the Air Command and Staff College (ACSC), the School of Advanced Air and Space Studies (SAASS), and the Air War College (AWC). The Deans of Research at ACSC and SAASS quickly approved the request to survey their student population on a voluntary basis. The Dean of Research for the AWC declined the support the survey request. I faced an additional challenge in scheduling the survey that was outside of my control: the calendar.

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[1] Numerous books introduce the study of social statistics. A couple that I find useful include: Jeffrey M. Wooldrige, *Introductory Econometrics: A Modern Approach*, (Mason, OH: Thomson South-Western, 2003) and Kirk Elifson, Richard P. Runyon, and Audrey Haber, *Fundamentals of Social Statistics*, (Boston, MA: McGraw Hill, 1998).

[2] More information regarding the Allegiance Survey Program can be found at: http://www.allegiance.com/solutions/surveys.

[3] My survey resides in the Air University electronics records management (AU/ERM) section under AU's Academic Affairs (AU/CF) Human Subjects Protection Program.

Although I received approval from two Deans of Research to proceed in mid-December, both schools released their students for a two-week holiday break. I reengaged immediately after the break but the lead up and lag time cost six weeks for survey distribution. After obtaining approval from the Dean of Research two schools here at AU, I drafted and sent an e-mail invitation to the identified survey population (all students and faculty of the respective schools) with a link to the survey. The Allegiance software captured responses while maintaining anonymity of those surveyed.

The process for survey approval and implementation would have been roughly the same at the Army and Navy schools. Again, time was the most significant factor in the coordination process within and between schools, particularly in regard to coordination certification and onsite implementation. During this process I was confronted with an additional hurdle. Each school had their own opinion of and recommendations for improving the survey questions. I understood the survey design and questions were not perfect and could not capture every situation. At this point I was confronted with the dilemma of getting a different set of survey questions approved and distributed, or sticking with the original survey questions. This was problematic for the methodological integrity of the subsequent analysis, as answers and results obtained through correlations and regressions require exactly the same questions. Asking one version of a question at a school while presenting significantly different versions to another school could potentially skew the results or provide marginally useful data. For this reason, I spent considerable time developing the questions and did change them throughout the process, at the expense of obtaining more data from respondents at other service schools.

## Question Development

I approached the questions and survey design specifically to minimize bias, induced or otherwise. I learned that this is an extremely

difficult thing to do.  I tried to prevent leading the respondent to a conclusion.  This required me to carefully consider the ordering and word choice within each question.  At the same time, the questions have to connect in a meaningful order methodologically to draw useful correlations.

Regardless of my attempt to reduce bias, some remained.  Bias entered from my own ideas which shaped the survey and from the pool of respondents.  The vast majority of students at ACSC received the survey in the midst of JPME instruction where doctrine and ideas of joint warfighting were fresh on their minds.  The next largest majority of respondents were instructors, who are much more familiar with joint concepts and have a higher likelihood of experience in the joint environment.

The largest critique I received during the question development and survey coordination process regarding bias surrounded two words, "efficient" and "effective."  A couple of reviewers suggested that I failed to define these words for survey takers, and in the process, would lead the respondent to a wide and potentially unhelpful interpretation of these words.  The reviewers suggested I should have defined the words.  My response to this constructive criticism was the defining the words for the reader would have injected unnecessary bias, personal or doctrinal, into the survey.  I believed that I could not expect original thought and honest answers in a survey designed to capture a respondent's perception if I provided definitions and examples.  In my reasoning, that would be the epitome of leading the respondent.

Perceptions of subordination were the key to this survey.  There were no "right or wrong" answers to the questions I posed.  Yet at the same time, I wanted to avoid "neither agree" or "neither disagree" responses.  To accomplish this, I adopted a six-point Likert Scale.  The six-point scale eliminates the "neutral" option, forcing the respondent to make a choice.  I also chose not to include a "not available" (n/a) option.

105

My decision to "force" an answer caused considerable debate and was the source of much personal consideration, but I ultimately adopted it as I thought it would yield the most useful insights.

The final source of constructive criticism and debate during this survey's development concerns respondent demographics. I hypothesized that command experience, level of PME (and JMPE) education, and joint experience would influence perceptions of command relationships. Asking respondents to identify their demographic background, while maintaining anonymity, separated several key variables, to include rank, service, career field, and time in service. These variables became valuable when examining perceptions associated with the survey questions. I was able to draw a number of correlations as a result during statistical analysis, linking background and experience with perceptions.

## Survey Results

I sent the survey via email invitation to 726 faculty and students of ACSC and SAASS, including civilians and international officers. Respondents had a one-week window (Wednesday – Wednesday) to participate in the survey. The survey was accessible from both .mil and personal computers to increase the response rate. Of the 726 invitations, I received 312 responses, for a 42.98% completion rate. Of these 312 responses, a range of 304 to 308 respondents answered each question.

The survey occurred during early February without any federal holidays or known external commitments. The participation rate was negatively impacted by faculty TDY's, civilians who chose not to participate (as it was voluntary), and international officers who chose not to participate (also voluntary). These circumstances were not accounted for in the completion rate.

I developed the questions around three research hypotheses. These included: 1) There is confusion within the DOD regarding the meaning of

supporting and supported command relationships, 2) There is a perception within the U.S. military that airpower is typically subordinate to land and maritime forces, and 3) I expected personal relationships are expected to be the #1 factor in contributing to or diminishing perceptions of subordination, followed by risk.

From these hypotheses, I generated fourteen survey questions and ten research questions. Unfortunately, the survey did not and could not address all of the research questions. I made the choice to limit the length of the survey to minimize the time and scheduling cost to student respondents, as I thought this would improve return rates. A more comprehensive survey would undoubtedly have yielded more precise results. I balanced the desire to break each question down into multiple parts against developing a much more complex, and unmanageable survey.

Several questions were designed to group together, linking one another in an attempt to establish patterns and determine correlations. Questions 3, 4, 6, and 7 addressed my first hypothesis. I tried to avoid leading the respondent toward an answer, but did drill down from "big to small" in this line of questioning. The process began with a generic question asking the respondent if joint and service doctrine clearly define command relationships. 90% of respondents agreed with this statement. Next, I asked if commanders and their respective staffs understand supporting and supported command relationships. 84% of respondents agreed with this. The final two questions asked if supporting commanders are inherently subordinate to supported commanders and if supporting commanders relinquish their command authority and responsibilities. A surprising 59% of respondents agreed to the

subordination question, while 35% agreed to the relinquishing of authority and responsibility.[4]

Addressing the second hypothesis was accomplished with two direct questions, numbers 11 and 12. Each of these asked the respondent, directly, if a perception of subordination exists between airpower and respective land and maritime forces. The third hypothesis was also asked via a direct means. Question number 5 and 14 accomplished this. The first question directly asked if command relationships are defined and/or influenced by a leader's calculation or perception of risk. Question 14 allowed the respondent to rank order factors by importance.

The remaining questions probed the understanding of supporting and supported forces, as well as exploring the perception of DOD and JPME effectiveness and efficiency.

The data and survey results were compiled and presented using Statistical Package for the Social Sciences (SPSS). As the name implies, SPSS provides the researcher with a powerful software tool to conduct statistical analysis.[5] The research questions, expanded data, charts, correlations, and regressions are available in Appendix I. I summarize the survey questions, and present the largest percentage of total agreement or total disagreement below:

1. The United States Department of Defense is an effective joint war fighting force.

   97% of respondents agreed with this statement.

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[4] I present the largest percentage in the following sections and Appendix. In other words, I present 65% disagreed with the authority and responsibility question in all future sections.
[5] SPSS is a very powerful tool for quantitative analysis. The program has a number of user's manuals, books, and how-to guides available for reference. While I had the added benefit of an Air University expert (Sophie Ryan), I also consulted a reference guide. See Andy Field, *Discovering Statistics using SPSS*, (Los Angeles, CA: Sage Publications, 2011).

2. The United States Department of Defense is an efficient joint war fighting force.

   70% of respondents agreed with this statement.

3. Joint and service doctrines clearly define command relationships.

   90% of respondents agreed with this statement.

4. Commanders and their respective staffs understand supporting and supported command relationships.

   84% of respondents agreed with this statement.

5. Command relationships are defined and/or influenced by a leaders calculation or perception of risk.

   88% of respondents agreed with this statement.

6. Supporting commanders are inherently subordinate to their supported commander.

   59% of respondents agreed with this statement.

7. Supporting commanders relinquish command authorities and responsibilities to supported commanders.

   65% of respondents disagreed with this statement.

8. Supported commanders may not require a supporting force to execute their missions.

   59% of respondents agreed with this statement.

9. Supporting forces are enablers.

   93% of respondents agreed with this statement.

10. Supporting forces may be the decisive element in an operation.

    96% of respondents agreed with this statement.

11. Airpower is perceived as subordinate to land forces.

    55% of respondents disagreed with this statement.

12. Airpower is perceived as subordinate to maritime forces.

    84% of respondents disagreed with this statement.

13. PME has prepared me to operate in a joint environment.

    83% of respondents agreed with this statement.

14. What are the most important factors that influence the command structure and success of joint forces? Respondents ranked the following factors in order of importance with ranking of 1 being most important and 5 the least:

    1.     Personal/Command Relationships

    2.     Preponderance of force

    3.     Weight of effort

    4.     Risk

    5.     Doctrine

### What Does it Mean?

The survey validated all three of my hypotheses. In my first hypothesis I expected to see confusion within DOD regarding relationships, particularly supporting and supported relationships. A significant majority (84%) of respondents agreed that commanders and their respective staffs understand supporting and supported command relationships. The slightly smaller majority of respondents recognized that supporting commanders do not relinquish command authorities and responsibilities to supported commanders (65%). Only a small minority of respondents, however, understand that supporting commanders are not subordinate to supported commanders (41%).[6] The survey results therefore validate that confusion does exist regarding the meaning of supporting and supported command relationships. Unfortunately, the survey did not satisfactorily identify the source of confusion or go into greater depth to yield definitive results.

I expected in my second hypothesis to see a perception of airpower subordination among respondents. The survey provided sufficient but not overwhelming statistical proof that such a perception does exist when airpower is considered with land power (45% agreed). More

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[6] Note that the last two questions are asked in the negative as opposed to the actual survey question.

110

interestingly, the perception does not statistically exist when considering airpower to maritime forces (only 16% agreed such a perception exists). Unfortunately, the survey did not provide the reason why this perception exists and these questions may be considered by other students as a potential topic for future qualitative or quantitative research.

I assumed in the third hypothesis that relationships would be the most important of the five identified factors. I fully expected risk to be the second dominant factor based on my experience. The survey validated relationships as the most important factor of the five presented in the survey. Interestingly, risk was number four in the rank ordering. Survey respondents chose preponderance of force as the second most important factor. This finding appears to follow reasoning that larger forces lower risk and guarantee a louder force/say/position. This bolsters the negotiating position or place within a relationship.

## Conclusion

While all three hypothesis were proven statistically true by the survey, it is important to emphasize its limited scope. The survey did not produce definitive results, but rather validation of the three hypotheses in a limited sense. The survey audience was largely USAF field grade officers (FGOs) attending JPME (ACSC and SAASS). While other services and ranks were represented, the percentage of those individuals was relatively small.

Additionally, it is important to re-emphasize the constraints of time on the survey development and delivery process. I deliberately "lumped" several questions together to minimize the impact on the respondents' time. In a perfect world, most of my questions would have been separated into parts to form a much longer survey.[7]

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[7] For example, the DOD is an efficient joint warfighting force would have been broken into (at least) a question targeting each service instead of the DOD writ large. It would also explore each service as a fighting force in addition to a joint fighting force.

The most important result I found from the survey was that confusion exists regarding command relationships. A perception of airpower subordination also exists. The most significant method of mitigating friction is through the development of personal and professional relationships. As the case studies have illustrated, relationships form the basis for commanders to establish trust and respect as they commit forces.

This survey provides a glimpse of the potential research that should be conducted in a more thorough and deterministic manner. A more robust survey, with a larger and more diverse sampling of our joint forces, may answer the ultimate question of why confusion of command relationships and perceptions of airpower subordination exists. Perhaps future researchers will unlock the mystery as to why this still exists despite almost three decades of joint operations and command relationships.
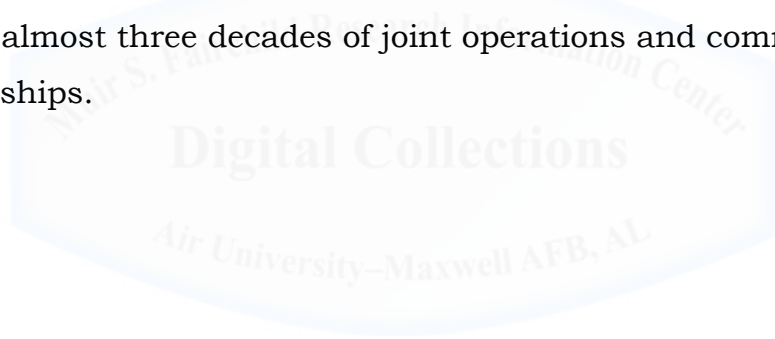
## Conclusion

Military operations have garnered much attention over the past decade. Declining budgets, limited resources, and growing worldwide commitments require the military to innovate and adapt. Providing our nation with effective and efficient security requires blending these efforts. Innovation and adaptation is not just about "doing more with less." The military must do more with the assets and resources it already has, across expanding domains (such as cyber), and in an ever growing range of environments and locations.

A straightforward method to increase efficiency and effectiveness is through joint operations. Joint forces capitalize on each service's unique strengths and capabilities, making the sum greater than the whole, while minimizing weaknesses. Tailoring a force package to a specific contingency or operation embodies adaptability and flexibility. Most importantly, joint forces present policymakers with additional options than Service-specific options alone. In addition, the Goldwater-Nichols Act of 1986 legally mandated joint cooperation, education, and employment.

Joint operations are as much an operational necessity as a mandated directive. Jointness ensures effectiveness and efficiency in today's constrained environment.[1] The intent and result of decades of jointness has been a more lethal, effective, and efficient force. Yet challenges remain. The Services compete for missions and resources, jockey for larger portions of the budget, and breed institutional parochialism. Joint education, mandated joint exercises, and joint operations combat such parochialism, reduce confusion, and force

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[1] As Thomas Donnelly stated, "efficiency and effectiveness are often at odds." Brunsting, in his SAASS thesis, investigated the concept of jointness and the balance of efficiency and effectiveness. See Maj Ronald Brunsting, "Jointness: All for One and One for All?" (master's thesis, School of Advanced Air and Space Studies, Maxwell AFB, AL, 2012), 80.

interactions between commanders and their staffs. Nevertheless confusion and tensions still exist.

Recently published after action reports indicate that confusion exists among commanders and their staffs regarding command relationships. I set out with a broad question in mind: Why? If doctrine clearly defines each type of relationship, why are these relationships confused in practice? Historical reports and personal observations deepened my suspicion that supported commanders appear to identify the term "supporting" as synonymous with "subordinate." Focusing on this suspicion led me to an observation, based on my personal experience as a liaison officer, that airpower may be incorrectly perceived as a subordinate force.

Refining the questions above resulted in three primary research hypotheses. First, there is confusion within the DOD regarding the meaning of supporting and supported command relationships. Second, there is a perception within the U.S. military that airpower is typically subordinate to land and maritime forces. Finally, relationships are expected to be the primary factor, followed by risk as the influential factor affecting the success or lack of success during operations.

This thesis has verified that confusion and tension exists between joint forces, particularly between air and ground force staff officers. Specifically, this thesis addressed the confusion between supporting and supported command relationships. To identify a possible root cause of this confusion, I illustrated a disconnect existing between joint terminology and the Service-specific education process. I then presented three case studies focusing on different joint operations. The case studies varied in time from World War II (WWII) to one of the Department of Defense's (DOD's) most recent operations. Each operation represented a wide spectrum of actions in varying environments, unique situations, and commanded by very different types of leaders.

The second hypothesis primarily relied upon the survey to either validate or invalidate my assumption.  The survey validated the perception of airpowers subordination to land forces, although not maritime forces.  As Chapter Six discussed, the results are not definite and require further research and study.

I addressed the third hypothesis through a combined research methodology.  To strengthen the analytical framework, I employed both qualitative and quantitative methods of research.  Adopting both approaches assisted in the isolation and identification of the key factor(s) influencing command relationships.  While small variations exist, both research methods produced similar results.  Relationships were identified as the primary factor.  However, survey respondents chose preponderance of force over risk as the secondary factor.  Conversely, risk appeared to be a more dominant factor in the case studies.

**Thesis Framework**

After introducing the problem and challenges of command relationships in the joint environment, I proceeded into an exploratory chapter focused on defining common terminology.  Chapter One accomplished this by providing a baseline understanding of command arrangements and relationships as provided for in joint and service doctrine.  The differences between terminology and their use became readily apparent when comparing joint and service doctrine.

These doctrinal definitions are further confused in the differing methods by which each Service commands and develops future leaders.  Cultural and environmental factors, both inherent in each Service and from the individual's experiences, influence each officer's development.

Chapter Two explored this dynamic before introducing the five factors consisting of personal and professional relationships, risk, doctrine, weight of effort, and preponderance of force.  A detailed study of the role of culture and environment that contributes to each factor is beyond the scope of this thesis.  However, a brief foray into each factor

115

examined the influence of cultural artifacts on each of the service's mission. Technology is a well-known cultural aspect of the Air Force. Considering the role of technology on the Service's perception and approach to warfighting provides insight into calculations of risk, problem-solving, and leadership.

Next, the chapter determined that officer development occurs at varying stages within each service. Army officers remain at the tactical level of warfighting, with more leadership opportunities, than their Air Force peers. The difference is more than subtle. It is reflected in Army Field Manuals and tactics, techniques, and procedure (TTP) publications which are Army-centric and tactical in comparison to their equivalent Air Force Doctrine and TTP publications.

Chapter Three provided the first part of the qualitative research for this thesis. This first case study examined a special operations mission conducted inside a theater, which was part of a larger campaign. The Chindits and Air Commandos conducted missions throughout the China-Burma-India Theater. The operations were a small and supporting, yet strategically important part of the overall WWII campaign. Within these operations, the Chindit-Air Commando relationship provided a unique depiction of air and ground power integration. Two dominant, if not peculiar, personalities successfully accomplished remarkably dangerous and daunting tasks. Both commanders established trust and respect for one another through their shared dedication to the mission, tenacity to solve problems, and experiences in training and operating together. Airpower was relatively young at this point and doctrine was rarely available. The legacy of the Chindits and Air Commandos provided the framework of today's Air Force Special Operations Command (AFSOC).

Chapter Four moves forward in history to the tense moments of the US Embassy takeover in Tehran and subsequent hostage crisis in 1979. The US military was recovering from the Vietnam War and struggling to reacquire its capabilities, confidence, and professionalism. Additionally,

resource constraints and deep service parochialism challenged joint operations during this time.  The ad-hoc formation of a JTF to rescue the hostages managed to pool resources, develop new TTP's and equipment, and formulate a viable mission.  However, the same JTF leadership compartmentalized information to such an extreme that component commanders were unaware of each other's planning, scheduled maneuvers, requirements, and assumptions.  The best relationships could not overcome a lack of knowledge and delegation of clearly articulated command relationships.  The lack of an overall on-scene commander provided multiple voices at various stages of the mission (air, ground, and helicopter on-scene commanders).  Confusion ensued, and with it, inefficiency.

Inefficiency was the least of the JTF's problems.  Yet confusion multiplied the effect of risk.  The mission ended in disaster at Desert One, failing to reach the hostages let alone rescue them.  The aftermath of Desert One was official review by the Holloway Commission, whose members made sharp criticisms and expressed skepticism of the Services' ability to operate jointly, especially on short notice, for high-risk missions.  The resultant passage of the 1986 Goldwater-Nichols Act directed jointness across the DOD, established joint education for officers, and required joint experience for general/flag rank promotion.

Twenty-five years after the passage of Goldwater-Nichols, Operation ODYSSEY DAWN (OOD) began.  The week-long operation provides another unique case study in joint command and application of force.  Chapter Five examines this airpower-dominated operation to the extent that currently available sources of information allowed.  Analysts might expect OOD to be a remarkable display of joint US military power given two decades of joint education and doctrine development.  In one sense, OOD was exactly this.  Subsequent after action reports, however, identify this historically recurrent theme of confusion surrounding command relationships.  The confusion occurred at the staff officer level

where relationship building is less likely to occur. As a result, the various staffs contributing to OOD failed to reach out to one another or coordinate or collaborate in a meaningful way. Planning remains insular among the Services and within staffs and must be force to become more integrated and joint by commanders.

Unlike their staff officers, the senior component and joint leadership well understood command relationships. In instances where they did not have prior working relationships, these leaders forged trust and respect through coordination and collaboration during the planning and execution phase. These relationships were critical to managing and mitigating the unique distributed operations which increased risk to force and risk to mission. As General Woodward emphasized, "convincing the commander above you to accept risk" was an immense challenge.[2]

Chapter Six introduced the survey and its results. The survey complimented the case studies, and contributed to the mixed methodological approach of this thesis, in its quantitative design. As stated previously, the survey was successful in a limited sense in validating several hypotheses. In addition, Chapter Six identifies a number of issues and research questions for further exploration on this subject. The chapter concluded with a brief discussion of the survey results in comparison to the key findings of the three case studies.

### Final Thoughts and Way-Ahead

Airpower has the ability to operate in a supported or supporting role. Just what precisely constitutes supported or supporting, and how they differ, can be the subject of individual interpretation. The confusion surrounding different interpretations of supported and supporting command relationships decreases operational effectiveness and efficiency. Success in future operations requires clearly articulated and understood command relationships. Officers must receive sufficient

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[2] Maj Gen Margaret Woodward (17th Air Force Commander), interview with author, 17 April 2014.

118

education, experience, and exposure to joint doctrine before employing and integrating forces in a combat environment.

The combined qualitative and quantitative approach used in this study validates the importance of joint education and relationship building. The astute practitioner of military matters should not be overly surprised by this finding. Instead, the search for the root cause of perceptions of subordination ultimately eludes us. By examining three case studies, each capturing a slice of operational history across time, environments, mission types, technological advancement, and doctrinal codification, we have discovered that these phenomena of command-related friction are not new. More importantly, the development of strong personal relationships built upon trust and respect are crucial in mitigating confusion and improper perceptions. These relationships are built upon education, training, and interaction.

The preceding observations beg the obvious question: Where do we go from here? I offer a few thoughts on the matter below, however, more study and research is ultimately required. First and foremost, a thorough and comprehensive DOD survey, across all Services and perhaps sponsored by the Joint Staff, would assist in a comprehensive understanding of current perceptions and beliefs, as well as identifying the source of command relationship confusion.

The DOD will continue to experience resource scarcity and funding limitations, at least for the foreseeable future. Yet at the same time, we can expect commitments and demands on military resources to increase. Renewed state competition such as we are seeing currently with Russia, the rise of non-state actors, and unplanned or unforeseen actors and contingencies will challenge the DOD's ability to generate options and react to several crises simultaneously. Joint operations will not only be directed by the national command authority, they will be an operational and strategic necessity.

As operations become more joint, so must our staff officers. Joint education must begin earlier for our Army peers. The curriculum for all joint courses should be reviewed frequently and scrutinized very closely. Current JPME courses claim to provide joint education, but are more frequently seminars covering Service-specific planning process that simply tacks on assets from the other Services. This is not meaningful joint planning, much less joint education. In order to fix this, first the ratio of sister Service officers in JPME courses must be increased. Second, Service-specific planning can and should be augmented with education on what joint staffs are and how they should function. Such efforts require a more detailed and honest understanding of what comprises a joint staff. A Service-specific staff, augmented by other Services' liaison officers (LNO's), is a poor definition of joint staff. Such staffing may fit the definition and form of "joint," but do not reflect its true nature.

Third, educational institutions must value joint education. Each university produces a product, has an agenda, and serves Service-specific requirements and needs. JPME requirements can be viewed at best as an intrusion into a curriculum. At worst, these requirements can be met by doing the absolute minimum necessary. Such views are not necessarily wrong. But the agenda of joint education must change. Joint parochialism should have to compete with Service-specific parochialism.

Finally, joint education and development must be incentivized. Senior Service leadership and officers must truly value becoming a joint officer. Development and leadership tracks must allow officers to grow in the joint world. Joint officers must also be promoted and provided advancement opportunities competitive with those unique to their own Service.

Operationally, staff personnel should make integration and information sharing with other Service staff their first priority.

Relationship building cannot and should be the responsibility of commanders or senior leaders alone.  Staff officers must do the same. Exchanging LNO's has proven to be a successful first step toward accomplishing this goal.  Unfortunately, many LNO's are insufficiently prepared for the position, view the assignment as punishment instead of a reward, and rarely recognition of their efforts.  Regrettably, when manning shortfalls occur and funding becomes tight, LNO's are usually the first personnel cut.  Sharing information and integrating forces is critical to mission success.  Operational plans increasingly rely on joint capabilities and integration.  These plans cannot be built and stored in a vacuum-sealed, Service-specific vault.

Clausewitz's dictum that war is still a human endeavor is as relevant today as it was nearly two hundred years ago.[3]  Humans interact to achieve things collectively, and in the process they build and destroy relationships.  This may be an overly simplistic observation, but our job in joint operations is to strengthen our relationships and destroy those of the enemy.  The operational environment will continue to require human interaction, particularly between the services.  No revolution or amount of technology will replace this necessity.

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[3] As Clausewitz wrote, "War is an act of human intercourse. We therefore conclude that war does not belong in the realm of arts and sciences; rather it is part of man's social existence. War is a clash between major interests, which is resolved by bloodshed."  See Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 149.

This appendix includes the survey questions, raw data, and pattern matrix which provides correlation between five factors. The factors discussed in this Appendix are not the same as those discussed throughout the thesis. In the context of this Appendix, the survey factors are the grouped components of all survey items.

Survey respondents remain anonymous, data is presented in the aggregate. Thank you to Sophie Ryan for her help in producing the correlations and regressions.

## Thesis Survey Questions

**Demographics**

Grade:

Service:

Primary AFSC/MOS:

Time in Service (Total):

Completed PME Courses:

Joint Credit (Yes, staff experience >22 Months, Yes staff experience <22 Months, No):

Command Experience (Det, Sqdn, Deployed Sqdn):

**Questions – six-point Likert Scale.**

1. The United States Department of Defense is an effective joint war fighting force.
2. The United States Department of Defense is an efficient joint war fighting force.
3. Joint and service doctrines clearly define command relationships.
4. Commanders and their respective staffs understand supporting and supported command relationships.
5. Command relationships are defined and/or influenced by a leaders calculation or perception of risk.

6. Supporting commanders are inherently subordinate to their supported commander.

7. Supporting commanders relinquish command authorities and responsibilities to supported commanders.

8. Supported commanders may not require a supporting force to execute their missions.

9. Supporting forces are enablers.

10. Supporting forces may be the decisive element in an operation.

11. Airpower is perceived as subordinate to land forces.

12. Airpower is perceived as subordinate to maritime forces.

13. PME has prepared me to operate in a joint environment.

14. Ranking in order, 1 being most important with 5 being least important, what factors influence the command structure and success of joint forces?
    a. Risk
    b. Relationships
    c. Doctrine
    d. Weight of Effort
    e. Preponderance of force

15. Is there anything you would like to expand upon:

**Raw Data**

Respondents were asked basic demographic questions to include: Grade, service affiliation, joint credit experience, command experience, time-in-service, and level of PME completion (or current attendance).

With the exception of time-in-service and level of PME completion, results are presented below:

**Grade:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | O-3 | 1 | .3 | .3 | .3 |
| | O-4 | 245 | 78.5 | 78.5 | 78.8 |
| | O-5 | 50 | 16.0 | 16.0 | 94.8 |
| | O-6 | 4 | 1.3 | 1.3 | 96.1 |
| | GS-12 | 1 | .3 | .3 | 96.4 |
| | GS-13 | 2 | .6 | .6 | 97.0 |
| | GS-14 | 2 | .6 | .6 | 97.7 |
| | GS-15 | 3 | 1.0 | 1.0 | 98.7 |
| | Other | 4 | 1.3 | 1.3 | 100.0 |
| | Total | 312 | 100.0 | 100.0 | |

**My Service Affiliation is:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | USAF Active Duty | 229 | 73.4 | 73.4 | 73.4 |
| | AFR | 8 | 2.6 | 2.6 | 76.0 |
| | ANG | 3 | 1.0 | 1.0 | 77.0 |
| | USA | 13 | 4.2 | 4.2 | 81.2 |
| | USN/USCG | 14 | 4.5 | 4.5 | 85.7 |
| | USMC | 9 | 2.9 | 2.9 | 88.6 |
| | International | 24 | 7.7 | 7.7 | 96.3 |
| | Civilian | 11 | 3.5 | 3.5 | 99.8 |
| | Other | 1 | .3 | .3 | 100.0 |
| | Total | 312 | 100.0 | 100.0 | |

**Joint Credit:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Yes 22 months on joint staff | 5 | 1.6 | 1.6 | 1.6 |
| | Yes 36 months on joint staff | 17 | 5.4 | 5.4 | 7.0 |
| | No | 259 | 83.0 | 83.3 | 90.3 |
| | Other | 30 | 9.6 | 9.6 | 100.0 |
| | Total | 311 | 99.7 | 100.0 | |
| Missing | System | 1 | .3 | | |
| Total | | 312 | 100.0 | | |

**Command Experience:**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Det | 33 | 10.6 | 10.7 | 10.7 |
| | Sqdn | 49 | 15.7 | 15.7 | 26.4 |
| | Deployed Sqnd | 17 | 5.4 | 5.4 | 31.8 |
| | None | 188 | 60.3 | 60.5 | 92.3 |
| | Other | 24 | 7.7 | 7.7 | 100.0 |
| | Total | 311 | 99.7 | 100.0 | |
| Missing | System | 1 | .3 | | |
| Total | | 312 | 100.0 | | |

The raw survey results from each question are presented below:

| | Strongly Agree | Agree | Slightly Agree | Slightly Disagree | Disagree | Strongly Disagree | Total Agree | Total Disagree | Total |
|---|---|---|---|---|---|---|---|---|---|
| **The United States Department of Defense is an effective joint war fighting force.** | | | | | | | | | |
| **Frequency** | 59 | *190* | 49 | 4 | 5 | 1 | 298 | 10 | 308 |
| **Percentage** | 19% | *62%* | 16% | 1% | 2% | 0% | 97% | 3% | 100% |
| **The United States Department of Defense is an efficient joint war fighting force.** | | | | | | | | | |
| **Frequency** | 20 | 94 | *103* | 60 | 26 | 5 | 217 | 91 | 308 |
| **Percentage** | 6% | 31% | *33%* | 19% | 8% | 2% | 70% | 30% | 100% |
| **Joint and service doctrines clearly define command relationships.** | | | | | | | | | |
| **Frequency** | 27 | *140* | 109 | 23 | 7 | 2 | 276 | 32 | 308 |
| **Percentage** | 9% | *45%* | 35% | 7% | 2% | 1% | 90% | 10% | 100% |
| **Commanders and their respective staffs understand supporting and supported command relationships.** | | | | | | | | | |
| **Frequency** | 33 | *145* | 80 | 36 | 9 | 5 | 258 | 50 | 308 |
| **Percentage** | 11% | *47%* | 26% | 12% | 3% | 2% | 84% | 16% | 100% |
| **Command relationships are defined and/or influenced by a leaders calculation or perception of risk.** | | | | | | | | | |
| **Frequency** | 32 | *157* | 80 | 20 | 17 | 1 | 269 | 38 | 307 |
| **Percentage** | 10% | *51%* | 26% | 7% | 6% | 0% | 88% | 12% | 100% |
| **Supporting commanders are inherently subordinate to their supported commander.** | | | | | | | | | |
| **Frequency** | 15 | *87* | 79 | 54 | 54 | 17 | 181 | 125 | 306 |
| **Percentage** | 5% | *28%* | 26% | 18% | 18% | 6% | 59% | 41% | 100% |
| **Supporting commanders relinquish command authorities and responsibilities to supported commanders.** | | | | | | | | | |
| **Frequency** | 10 | 48 | 50 | 45 | *107* | 45 | 108 | 197 | 305 |
| **Percentage** | 3% | 16% | 16% | 15% | *35%* | 15% | 35% | 65% | 100% |
| **Supported commanders may not require a supporting force to execute their missions.** | | | | | | | | | |
| **Frequency** | 21 | *99* | 61 | 46 | 62 | 19 | 181 | 127 | 308 |
| **Percentage** | 7% | *32%* | 20% | 15% | 20% | 6% | 59% | 41% | 100% |
| **Supporting forces are enablers.** | | | | | | | | | |
| **Frequency** | 60 | *168* | 57 | 7 | 15 | 0 | 285 | 22 | 307 |
| **Percentage** | 20% | *55%* | 19% | 2% | 5% | 0% | 93% | 7% | 100% |
| **Supporting forces may be the decisive element in an operation.** | | | | | | | | | |
| **Frequency** | 90 | *168* | 36 | 5 | 5 | 2 | 294 | 12 | 306 |
| **Percentage** | 29% | *55%* | 12% | 2% | 2% | 1% | 96% | 4% | 100% |
| **Airpower is perceived as subordinate to land forces.** | | | | | | | | | |
| **Frequency** | 14 | 51 | 72 | 58 | *84* | 27 | 137 | 169 | 306 |
| **Percentage** | 5% | 17% | 24% | 19% | *27%* | 9% | 45% | 55% | 100% |
| **Airpower is perceived as subordinate to maritime forces** | | | | | | | | | |
| **Frequency** | 6 | 13 | 31 | 98 | *123* | 36 | 50 | 257 | 307 |
| **Percentage** | 2% | 4% | 10% | 32% | *40%* | 12% | 16% | 84% | 100% |
| **PME has prepared me to operate in a joint environment.** | | | | | | | | | |
| **Frequency** | 21 | 110 | *120* | 20 | 24 | 9 | 251 | 53 | 304 |
| **Percentage** | 7% | 36% | *39%* | 7% | 8% | 3% | 83% | 17% | 100% |

Question 15: Ranking in order, 1 being most important with 5 being least important, what factors influence the command structure and success of joint forces?

Respondents ranked the following factors in order of importance with 1 being most important:

1) Personal/Command Relationships
2) Preponderance of force
3) Weight of effort
4) Risk
5) Doctrine

**Relationships:**

| Rank | Respondents | Score |
|---|---|---|
| *1* | *129* | *645* |
| 2 | 54 | 216 |
| 3 | 49 | 147 |
| 4 | 45 | 90 |
| 5 | 30 | 30 |
| **Total:** | **307** | **1128** |

**Preponderance of force:**

| Rank | Respondents | Score |
|---|---|---|
| 1 | 73 | 365 |
| *2* | *89* | *356* |
| 3 | 55 | 165 |
| 4 | 63 | 126 |
| 5 | 26 | 26 |
| **Total:** | **306** | **1038** |

**Weight of Effort:**

| Rank | Respondents | Score |
|------|-------------|-------|
| 1 | 57 | 285 |
| 2 | 72 | 288 |
| *3* | *85* | *255* |
| 4 | 57 | 114 |
| 5 | 35 | 35 |
| Total: | **306** | **977** |

**Risk:**

| Rank | Respondents | Score |
|------|-------------|-------|
| 1 | 13 | 65 |
| 2 | 48 | 192 |
| 3 | 73 | 219 |
| *4* | *95* | *190* |
| 5 | 77 | 77 |
| Total: | **306** | **743** |

**Doctrine:**

| Rank | Respondents | Score |
|------|-------------|-------|
| 1 | 35 | 175 |
| 2 | 43 | 172 |
| 3 | 44 | 132 |
| 4 | 46 | 92 |
| *5* | *138* | *138* |
| Total: | **306** | **709** |

**Survey Results**

**Research hypotheses:**

1.      There is confusion within the DOD regarding the meaning of supporting and supported command relationships.

2.      There is a perception within the U.S. military that airpower is typically subordinate to land and maritime forces.

3.      Relationships are expected to be the #1 factor, followed by risk.

**Research Questions:**

1.  Joint doctrine clearly defines command relationships. However, confusion exists at the operational level as to what these command relationships mean.

**Statistically significant relationships are reported below**. I will describe each of the correlations in terms of the letter assigned to each survey item (a, b, c etc) below.  I won't repeat them, but will only add new ones under each item:

a.  Joint and service doctrines clearly define command
    relationships:
      i.    Items a & b (r = .537, p < .000)
      ii.   Items a & c (r = .268, p < .000)
      iii.  Items a & e (r = .145, p = .012)
      iv.   Items a & g (r = .163, p = .004)
      v.    Items a & h (r = .116, p = .044)

Multiple regression was performed on the items above using *Joint and service doctrines clearly define command relationships* as the dependent (outcome) variable and the other correlated items as independent (predictor) variables.  The linear combination of the predictor variables accounted for 31%, ($R^2$ = .313) of the reasons why

129

*Joint and service doctrines clearly define command relationships.* That leaves 69% of the reasons unexplained, possibly the source of confusion existing at the operational level. Further, when combined, only two of the predictor variables provided a significant contribution to the outcome, probably due to the small correlations. They were:

*Commanders and their respective staffs understand supporting and supported command relationships,* $\beta$ = .493, p < .000.

*Command relationships are defined and/or influenced by a leader's calculation or perception of risk,* $\beta$ = .108, p = .039.

    b. Commanders and their respective staffs understand supporting and supported command relationships:
      i.    Items b and c (r = .279, p < .000)
      ii.    Items b and d (r = .130, p = .023)
      iii.    Items b and e (r = .209, p < .000)
      iv.    Items b and g (r = .139, p = .015)

Multiple regression was performed on the items above using *Commanders and their respective staffs understand supporting and supported command relationships* as the dependent (outcome) variable and the other correlated items as independent (predictor) variables. The linear combination of the predictor variables accounted for 11%, ($R^2$ = .107) of the reasons why *Commanders and their respective staffs understand supporting and supported command relationships.* That leaves 89% of the reasons unexplained, possibly the source of confusion existing at the operational level. Further, when combined, only two of the predictor variables provided a significant contribution to the outcome, probably due to the small correlations. They were:

130

*Command relationships are defined and/or influenced by a leader's calculation or perception of risk.* β = .233, p < .000.

*Supporting commanders relinquish command authorities and responsibilities to supported commanders.* β = .145, p = .026.

    c. Command relationships are defined and/or influenced by a leader's calculation or perception of risk:
   - i. Items c & d (r = .161; p = .005)
   - ii. Items c & e (r = .234, p < .000)
   - iii. Items c & g (r = .169, p = .003)

Multiple regression was performed on the items above using *Command relationships are defined and/or influenced by a leader's calculation or perception of risk* as the dependent (outcome) variable and the other correlated items as independent (predictor) variables. The linear combination of the predictor variables accounted for only 7%, ($R^2$ = .074) of the reasons why *Command relationships are defined and/or influenced by a leader's calculation or perception of risk.* That leaves 93% of the reasons unexplained. Further, when combined, only two of the predictor variables provided a significant contribution to the outcome, probably due to the small correlations. They were:

*Supporting commanders relinquish command authorities and responsibilities to supported commanders.* β = .201, p = .002.

*Supporting forces are enablers.* β = .135, p = .019.

d. Supporting commanders are inherently subordinate to their supported commander.

    i.    Items d & e (r = .514, p < .000)

    ii.    Items d & g (r = .210, p < .000)

Multiple regression was performed on the items above using *Supporting commanders are inherently subordinate to their supported commander* as the dependent (outcome) variable and the other correlated items as independent (predictor) variables.  The linear combination of the predictor variables accounted for a moderate 28%, ($R^2$ = .282) of the reasons why *Command relationships are defined and/or influenced by a leader's calculation or perception of risk.*  That leaves 72% of the reasons unexplained. Both of the predictor variables provided a significant contribution to the outcome.  They were:

*Supporting commanders relinquish command authorities and responsibilities to supported commanders.* β = .493, p < .000.

*Supporting forces are enablers.* β = .140, p = .005.

The following items had only one predictor, so the correlation is the same as the single regression value.

e. Supporting commanders relinquish command authorities and responsibilities to supported commanders.

    i.    Item e & g (r = .139, p = .015)

f. Supported commanders may not require a supporting force to execute their missions.

    i.    Items f & g (r = .126, p = .027)

g.  Supporting forces are enablers.

    i.    Items g and h (r = .172, p = .003)

h.  Supporting forces may be the decisive element in an operation. (all correlations are accounted for above)

2.  Have the intricacies of command and the relationships among commanders changed significantly with the advent and evolution of airpower?

The survey did not address this question so no data is available to answer the question.
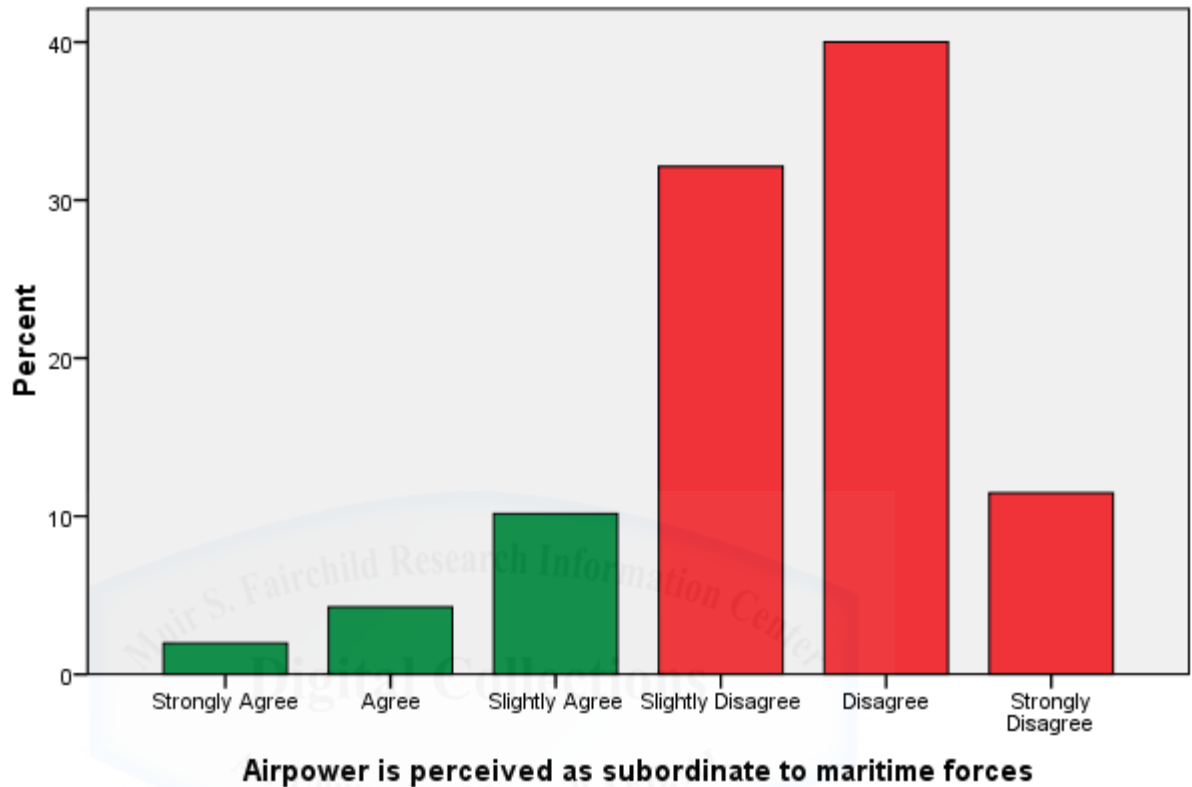
3.  Is airpower perceived as subordinate to maritime forces?

a.  No, only 16.4% of respondents agreed that airpower was perceived as subordinate to maritime forces versus 83.6% who disagreed.

b.  There was a statistically significant difference between those who perceived that airpower was subordinate to maritime forces

**Airpower is perceived as subordinate to maritime forces**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly Agree | 6 | 1.9 | 2.0 | 2.0 |
| | Agree | 13 | 4.2 | 4.3 | 6.2 |
| | Slightly Agree | 31 | 10.0 | 10.2 | 16.4 |
| | Slightly Disagree | 98 | 31.6 | 32.1 | 48.5 |
| | Disagree | 122 | 39.4 | 40.0 | 88.5 |
| | Strongly Disagree | 35 | 11.3 | 11.5 | 100.0 |
| | Total | 305 | 98.4 | 100.0 | |
| Missing | System | 5 | 1.6 | | |
| Total | | 310 | 100.0 | | |

133

## Airpower is perceived as subordinate to maritime forces



**Airpower is perceived as subordinate to maritime forces**

4.  Is airpower perceived as subordinate to land forces?  Yes.  The distribution was bi-modal with 45% of respondents perceiving Air was subordinate to Land versus 55% who disagreed with that perception. More fidelity is needed.  Tests indicated TIS to be a contributing factor. In order to determine where the difference was the TIS variable was re-grouped as noted below.*  There was a statistically significant difference between those who perceived airpower is subordinate to maritime forces (F based upon TIS.  The differences were not discrete.  Rather, the respondents with the most TIS (Grp 4) were more likely to agree.  As the groups reduced in TIS the perception became gradually stronger that was between those with the least TIS compared to those with the most TIS.

134

*TIS variable was recoded into a new variable that combined years of service: 10-14 = grp1; 15-19 = grp 2; 20-24 = grp 3; and 25-30 = grp 4. One student had 35 years TIS and was excluded as outlier.

**Airpower is perceived as subordinate to land forces.**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly Agree | 14 | 4.5 | 4.6 | 4.6 |
| | Agree | 51 | 16.5 | 16.8 | 21.4 |
| | Slightly Agree | 72 | 23.2 | 23.7 | 45.1 |
| | Slightly Disagree | 58 | 18.7 | 19.1 | 64.1 |
| | Disagree | 83 | 26.8 | 27.3 | 91.4 |
| | Strongly Disagree | 26 | 8.4 | 8.6 | 100.0 |
| | Total | 304 | 98.1 | 100.0 | |
| Missing | System | 6 | 1.9 | | |
| Total | | 310 | 100.0 | | |

The bar chart below illustrates that as TIS increases, the perception that airpower is subordinate to land forces also increases. TIS groups 1 and 2 (those with 10-19 years of service) clearly lean toward disagreement. Group 4 (those with 25-30 years of service) are more inclined to agree that airpower is perceived as subordinate to land forces.

## Bar Chart
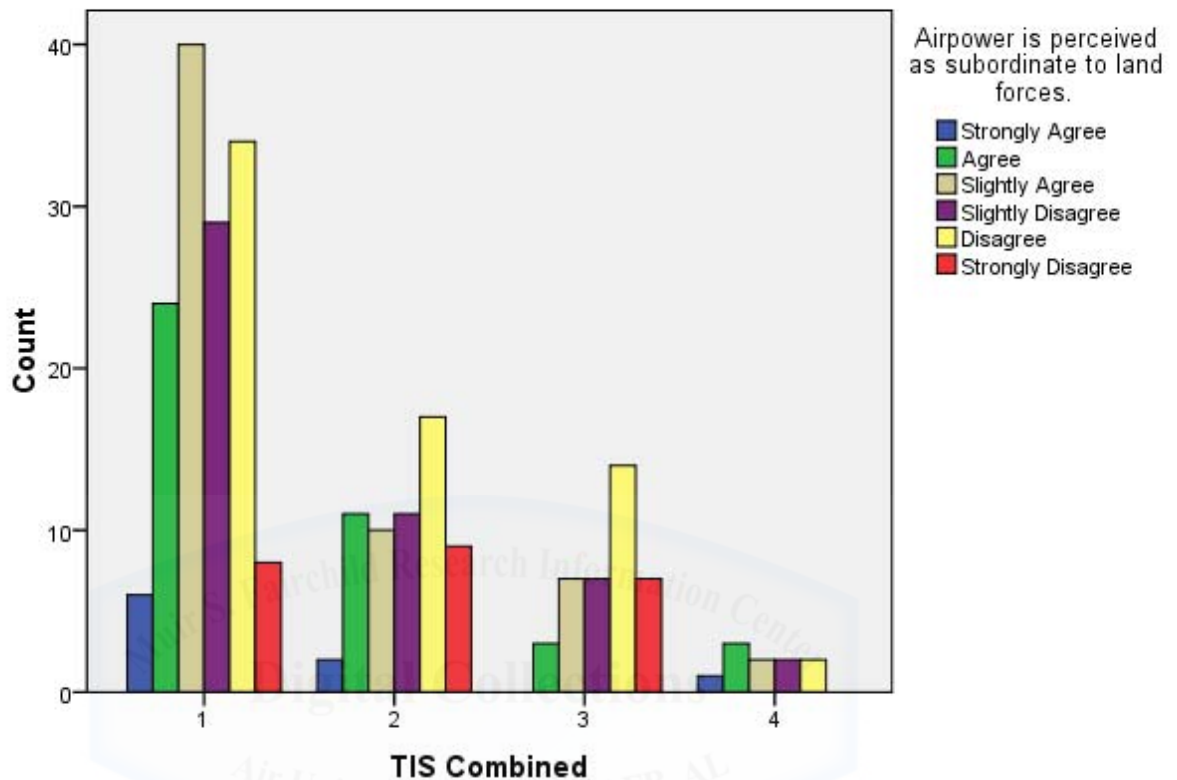


The correlation between *TIS* and *Airpower is perceived as subordinate to Land Forces* is marginally statistically significant (p = .055); and the correlation is small (r = .118). The same could be said for the perception with *Maritime Forces* (p = .069; r = .112). That begs the question, why are those with greater TIS slightly more likely to perceive that airpower is subordinate to Land Forces than those with less? (Despite differences in TIS the rank structure of respondents is essentially Majors and Lt Colonels.) Correlations and MANOVAs were performed using all the demographic factors: Grade, TIS, Service Affiliation, Command Experience and Joint Credit with both Land and Maritime perceptions. None of them provided statistical significance and

136

correlations were very low.  Therefore, the reason remains unknown at this point and requires further research.
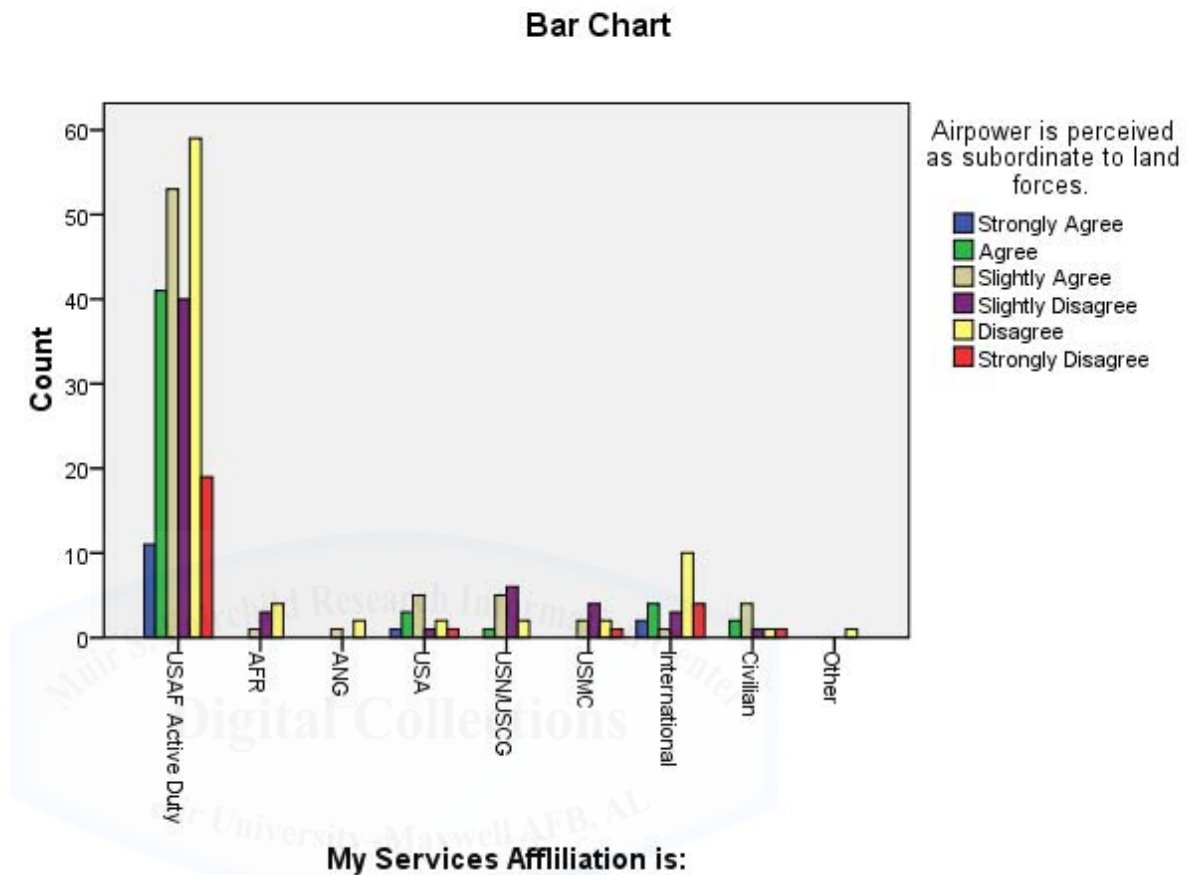
**Correlations**

| | | Total Years in Service: | Airpower is perceived as subordinate to land forces. | Airpower is perceived as subordinate to maritime forces |
|---|---|---|---|---|
| Total Years in Service: | Pearson Correlation | 1 | .118 | .112 |
| | Sig. (2-tailed) | | .055 | .069 |
| | N | 269 | 265 | 266 |
| Airpower is perceived as subordinate to land forces. | Pearson Correlation | .118 | 1 | .703** |
| | Sig. (2-tailed) | .055 | | .000 |
| | N | 265 | 304 | 304 |
| Airpower is perceived as subordinate to maritime forces | Pearson Correlation | .112 | .703** | 1 |
| | Sig. (2-tailed) | .069 | .000 | |
| | N | 266 | 304 | 305 |

**. Correlation is significant at the 0.01 level (2-tailed).



Airpower is perceived as subordinate to land forces.

## Bar Chart
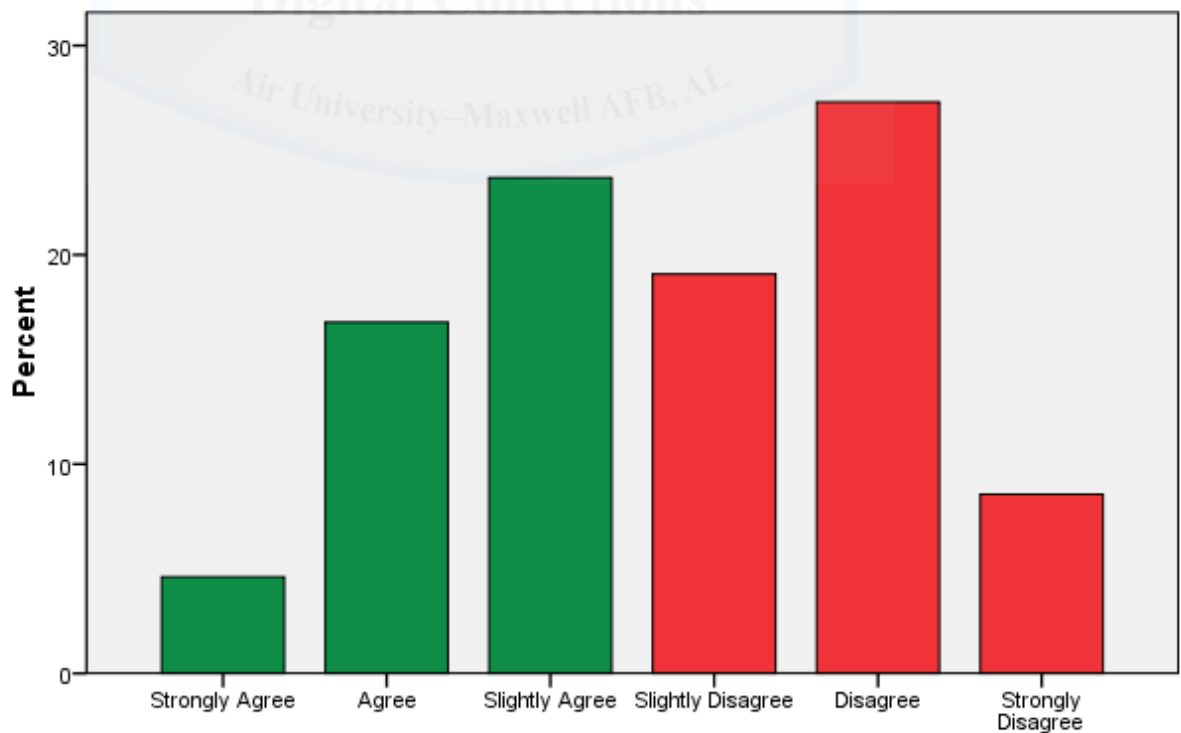


5. Supporting Commanders relinquish command authorities and responsibilities to supported commanders.

     a.     A multiple regression was performed using *Supporting Commanders relinquish command authorities and responsibilities to supported commanders* as the dependent (outcome) variable and 1) *Commanders and their respective staffs understand supporting and supported command relationships; 2) Command relationships are defined and/or influenced by a leader's calculation of risk; 3) Supporting commanders are inherently subordinate to their supported commander*

138

and *4) Airpower is perceived as subordinate to maritime forces"* as independent (predictor) variables.

The result indicated that these four independent variables explain 31% of the reasons why respondents perceived Supporting Commanders relinquish command authorities and responsibilities to supported commanders. $R^2$ = .314, p < .000. The individual contributions of each of the four independent variables are noted in the table below. Clearly, the belief that *Supporting commanders are inherently subordinate to their supported commander,* contributes the most (of these four variables) in predicting the perceptions that *Supporting Commanders relinquish command authorities and responsibilities to supported commanders.* (β = .446, p < .000).

6. Are key terms used interchangeably? Is this a source of confusion?

Survey items did not address this.

7. Are the differences of command an inherent source of confusion at the joint warfighting level?

Survey items did not address this.

8. Army officers experience command early in their career. Does this shape perceptions of command relationships, particularly when entering the joint arena later in their career?

Survey did not get directly at this, so the data was not useful.

9. Conversely, Air Force officers experience command later in their career. Does this shape their perceptions?

Survey did not get directly at this, so the data was not useful.

10. Early Army command is tactical, whereas airpower operates across the spectrum of warfare (strategic-operational-tactical). How does this influence perceptions?

Survey did not get directly at this, so the data was not useful.

11. What are the most important factors that influence the command structure and success of joint forces? Respondents ranked the following factors in order of importance with ranking of 1 being most important and 5 the least:

a.	Personal/Command Relationships
b.	Preponderance of force
c.	Weight of effort
d.	Risk
e.	Doctrine
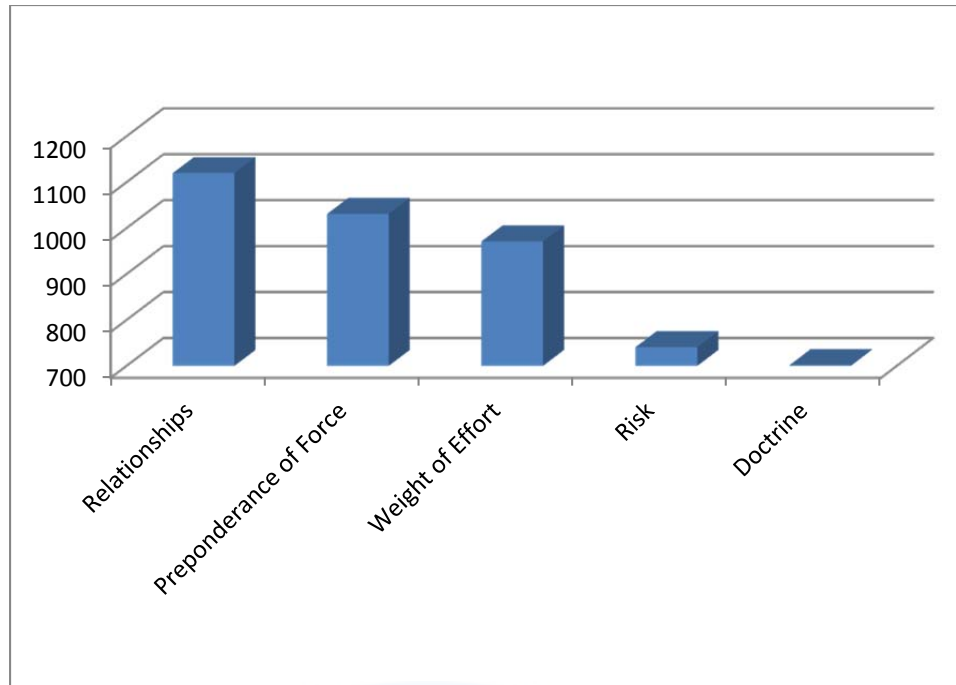
**Correlation**

Factor 1: PME impacts perceptions of command relations in the joint environment

Factor 2: Airpower is perceived as subordinate

Factor 3: Command experience impacts perceptions of the role of supporting forces

Factor 4: Those who DO NOT have Joint Credit BELIEVE 'Supporting forces are enablers' and 'Supporting forces may be the decisive element in an operation'

Factor 5: (*All of these variables loaded negatively on this factor which means the underlying premise is opposed to the three variables*) meaning those who DO NOT have Joint Credit also DO NOT BELIEVE 'Supporting Commanders relinquish command authorities and responsibilities to supported CCs', nor do they believe 'Supporting CCs are inherently subordinate to tier supported CC'. Both Factor 4 and Factor 5 are primarily influenced by NOT having Joint Credit

**Pattern Matrix**[a]

| | Component | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Joint and service doctrines clearly define command relationships. | .746 | | | | |
| The United States Department of Defense is an effective joint war fighting force. | .742 | | | | |
| The United States Department of Defense is an efficient joint war fighting force. | .729 | | | | |
| Commanders and their respective staffs understand supporting and supported command relationships. | .666 | | | | |
| PME has prepared me to operate in a joint environment. | .630 | | | | |
| Airpower is perceived as subordinate to maritime forces | | .903 | | | |
| Airpower is perceived as subordinate to land forces. | | .898 | | | |
| Command Experience | | | .783 | | |

| | | | | | |
|---|---|---|---|---|---|
| Supported commanders may not require a supporting force to execute their missions. | | | .593 | | |
| Supporting forces are enablers. | | | | .696 | |
| Supporting forces may be the decisive element in an operation. | | | | .643 | |
| Joint Credit: | | | .317 | -.438 | -.421 |
| Supporting commanders relinquish command authorities and responsibilities to supported commanders. | | | | | -.812 |
| Supporting commanders are inherently subordinate to their supported commander. | | | | | -.792 |
| Command relationships are defined and/or influenced by a leaders calculation or perception of risk. | | | | | |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 16 iterations.

**Coeficients[a]**

| Model | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| 1   (Constant) | .880 | .362 | | 2.434 | .016 |
| Commanders and their respective staffs understand supporting and supported command relationships. | .169 | .069 | .123 | 2.445 | .015 |
| Command relationships are defined and/or influenced by a leaders calculation or perception of risk. | .180 | .074 | .123 | 2.430 | .016 |
| Supporting commanders are inherently subordinate to their supported commander. | .479 | .054 | .446 | 8.812 | .000 |
| Airpower is perceived as subordinate to maritime forces | .164 | .066 | .124 | 2.482 | .014 |

a. Dependent Variable: Supporting commanders relinquish command authorities and responsibilities to supported commanders.

# ACRONYMS

ACCE – Air Component Coordination Element

ADCON – Adminstrative Control

AF – Air Force

AFAFRICA – Air Forces Africa

AFDD – Air Force Doctrine Document

AFM – Air Force Manual

AFSOC – Air Force Special Operations Command

AMC – Air Mission Commander

ANG – Air National Guard

AO – Area of Operations

AOC – Air Operations Center

ATTP – Army Tactics, Techniques, and Procedures

AWACS – Airborne Warning and Control System

C2 – Command and Control

CAOC – Combined Air Operations Center

CAS – Close Air Support

CASEVAC – Casualty Evacuation

CENTAF - Central Command Air Forces

CFLCC – Combined Forces Land Component Commander

CGO – Company Grade Officer

CJCS – Chairman of the Joint Chiefs of Staff

CJCSI – Chairman of the Joint Chiefs of Staff Instruction

145

COCOM – Combatant Command

COMJTF – Commander, Joint Task Force

EST – Eastern Standard Time

FGO – Field Grade Officer

FM – Field Manual

GCC – Geographic Combatant Commander

HA – Humanitarian Assistance

HOA – Horn of Africa

HQ - Headquarters

ICC - International Criminal Court

IDE – Intermediate Developmental Education

ISR – Intelligence, Surveillance, and Reconnaissance

JFACC - Joint Forces Air Component Commander

JFLCC – Joint Forces Land Component Commander

JFMCC - Joint Forces Maritime Component Commander

JFC - Joint Force Commander

JP – Joint Publication

JPME – Joint Professional Military Education

JTF – Joint Task Force

JTF/CC – Joint Task Force Commander

LNO – Liaison Officer

MAJCOM – Major Command

MOS – Military Occupational Specialty

NAVAF – U.S. Naval Forces Africa

NAVEUR - U.S. Naval Forces Europe

NATO – North Atlantic Treaty Organization

NEO – Noncombatant Evacuation Operations

NFZ – No-Fly Zone

NVG – Night Vision Goggles

OEF – Operation ENDURING FREEDOM

OOD – Operation ODYSSEY DAWN

OPCON – Operational Control

OPSEC – Operations Security

OUP – Operation UNIFIED PROTECTOR

PACAF – Pacific Air Forces

PME – Professional Military Education

RMA – Revolution in Military Affairs

SAASS – School of Advanced Air and Space Studies

SecDef – Secretary of Defense

SDE – Senior Developmental Education

SOF – Special Operations Forces

SOP – Standard Operating Procedures

TACON – Tactical Control

TTPs – Tactics, Techniques, and Procedures

UN – United Nations

UNSCR – United Nations Security Council Resolution

US – United States

USAF – United States Air Force

USAFE – United States Air Forces in Europe

USAFRICOM – United States Africa Command

USCENTCOM - United States Central Command

USEUCOM - United States European Command

USJFCOM – United States Joint Forces Command

USN – United States Navy

USS – United States Ship

USTRANSCOM - United States Transportation Command

USMC – United States Marine Corps

WWII – World War II

# BIBLIOGRAPHY

## Academic Papers/Journals

Brunsting, Ronald. "Jointness: All for One and One for All?" The School of Advanced Air and Space Studies, 2012.

Carey, Joel L. "Operation Odyssey Dawn and Lessons for the Future." Air War College, 2013.

DiMarco, Joyce P. "Service Culture Effects on Joint Operations: The Masks of War Unveiled." School of Advanced Military Studies, 2004.

Greenleaf, Jason R. "The Air War in Libya." *Air and Space Power Journal* 27, no. 2 (Spring 2013): 31. http://www.isn.ethz.ch/Digital-Library/Publications/Detail/?id=165620 (accessed 2 April 2014).

James, Gregory K. Larry Holcomb, and Chad T. Manske. "Joint Task Force Odyssey Dawn: A Model for Joint Experience, Training, and Education." *Joint Forces Quarterly* 64, (1st Quarter 2012): 24-29. http://www.dtic.mil/dtic/tr/fulltext/u2/a575521.pdf.

Katsos, George E. "Command Relationships." *Joint Forces Quarterly* 63, (4th Quarter 2011): 153-154. http://www.ndu.edu/press/lib/images/jfq-63/JFQ63_153-155_Katsos.pdf.

Kohalyk, Chad. *Desert One: From context to consequences.* Kingston, Ontario: Royal Military College, 2006. http://www.scribd.com/doc/24560894/Desert-One-From-context-to-consequences.

Kometer, Michael W. and Stephen E. Wright. "Winning in Libya: By Design or Default." Institut Francais des Relations Internationales (IFRI), 2013.

Kugler,Richard. "Operation Anaconda in Afghanistan. A Case Study of Adaptation in Battle." National Defense University, Center for Technology and National Security Policy, 2007.

Meilinger, Phillip S. "Unity of Command in the Pacific During World War II." *Joint Forces Quarterly* 63, (1st Quarter 2010): 152-156. http://www.ndu.edu/press/lib/images/jfq-56/25.pdf (accessed 30 December 2013).

Mis, James M. "From Son Tay to Desert One: Lessons Unlearned." Naval War College, 1998.

Murray, Susan L. "The United States Marine Corps and Special Operations: A Nineteen Year Convergence Toward a Marine Component." United States Army War College, 2006.

Nafziger, George F. "Japanese Monograph No. 134, Burma Operations Record, 15th Army Operations in Imphal Area and Withdrawal to Northern Burma." Army Command and General Staff College, 2004. http://www.cgsc.edu/CARL/nafziger/943PCAC.pdf.

Quartararo Sr, Joe, Michael Rovenolt, and Randy White. *Libya's Operation Odyssey Dawn. Command and Control*. Washington DC: National Defense University Press, 2012.

Radvanyi, Richard A. "Operation Eagle Claw – Lessons Learned." United States Marine Corps Command and Staff College, 2001.

Spirtas, Michael, Thomas-Durell Young, and S. Rebecca Zimmerman. "What it Takes. Air Force Command of Joint Operations." Rand Corporation, 2009.

Steele, William M. "The Iranian Hostage Rescue Mission: A Case Study." National War College, 1984.

Tanner, James C. "Operational Risk Management at the Operational Level of War." Naval War College, 1997.

Taylor, Michael W. "Service Culture and the Joint Force." United States Army War College, 2011.

Wnetrzak, Patrick V. "Finding Apollo's Warriors: The Future of the Air Commando Heritage." The School of Advanced Air and Space Studies, 2013.

## Articles

1st Special Operations Wing History Office. "Operation THURSDAY." http://www2.hurlburt.af.mil/library/factsheets/factsheet.asp?id=3387. (accessed 28 January 2014).

Air Force Print News Today. "Role of the Air Component Coordination Element." *Air Force Inspection* Agency, 21 June 2010. http://www.afia.af.mil/news/story_print.asp?id=123210289.

Al Jazeera. "The Arab Awakening." 22 February 2011. http://www.aljazeera.com/indepth/spotlight/2011/02/2011222121213770475.html.

Anglim, Simon J. *Major General Orde Wingate's Chindit Operations in World War II: Historical Case Study for the Operating Without a Net Project.* http://www.academia.edu/647651/Major_General_Orde_Wingates_Chindit_Operations_in_World_War_II_-_Historical_Case_Study_for_the_Operating_without_a_Net_Project.

"China-Burma-India, Remembering the Forgotten Theater of World War II." http://cbi-theater.home.comcast.net/~cbi-theater/menu/cbi_home.html. (accessed 27 January 2014).

"CBI Unit Histories, 1st Air Commando Group." Accessed 30 Jan 2014. http://www.cbi-history.com/part_vi_1st_air_commando_gp.html.

Ferran, Lee Megan Chuchmach, and Mark Schone. "Final F-22 Fighter Delivered, McCain Says $79B Jets Still Have No Mission." *ABC News.com*, 3 May 2012. http://abcnews.go.com/Blotter/final-22-fighter-delivered-sen-john-mccain-79b/story?id=16270127 (accessed 5 May 2014).

Garamone, Jim. "Operation Takes Aim at Libyan Air Defenses." *American*

*Forces Press Service,* 19 March 2011. http://www.defense.gov/news/newsarticle.aspx?id=63227. (accessed 26 March 2014).

Kreisher, Otto. "Desert One." *Air Force Magazine* vol 82, no 1 (January 1999), http://www.airforcemag.com/MagazineArchive/Pages/1999/January%201999/0199desertone.aspx (accessed 2 March 2014).

Marine Corps Center for Lessons Learned (MCCLL). "2008 Executive Summary of AFMCTT Trip Report to the CENTCOM AOR." https://www.mccll.usmc.mil/document_repository/Misc/AF%20Marine%20Trip%20Report-Final%2024%20Mar-CDR-3918.doc (accessed 9 February 2014).

Michalke, Jeff. "The history of the 1st Special Operations Wing revisted." *Air Force Special Operations Command*, 2006. http://www2.afsoc.af.mil/news/story.asp?id=123032287.

Opfor. "So Why Did We Buy the F22." Opfor.com, 28 March 2011. http://op-for.com/2011/03/so-why-did-we-buy-the-f22.html (accessed 5 May 2014).

Risen, James. "Secrets of History, The C.I.A. in Iran, Iran-U.S. Relations: A Chronology." *New York Times,* 2000. http://partners.nytimes.com/library/world/mideast/041600iran-us-timeline.html.

Thompson, Mark. "Air Boss." *Time,* 16 April 2011. http://content.time.com/time/magazine/article/0,9171,2063868,00.html.

Tirpak, John A. "Lessons From Libya." *Air Force Magazine* vol 94, no. 12, 2011. http://www.airforcemag.com/MagazineArchive/Pages/2011/December%202011/1211libya.aspx.

Torres, Stefanie. "General Ham visits air operations center responsible for Operation Odyssey Dawn air campaign." *17th Air Force Public Affairs,* 2011. http://www.usafe.af.mil/news/story.asp?id=123248095.

United States Special Operations Command. "United States Special Operations Command History: 15th Anniversary." http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA441686 (accessed 26 February 2014).

**Books**

Allen, Louis. *Burma, The Longest War 1941-45.* New York, NY: St. Martin's Press, 1984.

Beckwith, Charlie A., and Donald Knox. *Delta Force.* New York, NY: Harcourt Brace Jovanovich, 1983.

Bowden, Mark. *Guests of the Ayatollah.* New York, NY: Atlantic Monthly Press, 2006.

Boykin, Jerry. *Never Surrender: A Soldier's Journey to the Crossroads of*

*Faith and Freedom*. New York, NY: FaithWords, 2008.

Builder, Carl. *The Masks of War: American Military Styles in Strategy and Analysis*. Baltimore, MD: Johns Hopkins University Press, 1989.

Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.

Daugherty, William J. *In the Shadow of the Ayatollah*. Annapolis, MD: Naval Institute Press, 2001.

Elifson, Kirk, Richard P. Runyon, and Audrey Haber. *Fundamentals of Social Statistics*. Boston, MA: McGraw Hill, 1998.

Field, Andy. *Discovering Statistics using SPSS*. Los Angeles, CA: Sage Publications, 2011.

Grau, Lester and Dodge Billingsley. *Operation Anaconda: America's First Major Battle in Afghanistan*. Lawrence, KS: University Press of Kansas, 2011.

Griffith, Jr., Thomas. *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific*. Lawrence, KS: University of Kansas Press, 1998.

Higham, Robin and Stephen Harris, ed. *Why Air Forces Fail: The Anatomy of Defeat*. Lexington, KY: University of Kentucky Press, 2006.

Hughes, Thomas. *Over Lord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York: Free Press, 1995.

Kenny, George C. *General Kenney Reports: A Personal History of the Pacific War*. Washington, DC: Office of Air Force History, 1987.

Kiras, James D. "T. Michael Moseley: Air Power Warrior." In *Air Commanders*, edited by John Andreas Olsen, 395-427. Washington DC: Potomac Press, 2013.

Kometer, Michael W. *Command in Air War: Centralized versus Decentralized Control of Combat Airpower*. Maxwell AFB, AL: Air University Press, June 2007.

Kyle, James, H. *The Guts to try*. New York, NY: Orion Books, 1990.

Lenahan, Rod. *Crippled Eagle: A Historical Perspective of U.S. Special Operations 1976-1996*. Charleston, SC: Narwhal Press, 1998.

Mason, Herbert A., Randy G. Bergeron, and James A. Renfrow. *Operation Thursday: Birth of the Air Commandos*. Washington, DC: Air Force History and Museums Program, 1994.

Mead, Peter. *Orde Wingate and the Historians*. Braughton UK: Merlin, 1987.

Megargee, Geoffrey. *Inside Hitler's Command*. Lawrence, KS: University of Kansas Press, 2006.

Mets, David. *Master of Airpower: General Carl A. Spaatz*. Novato, CA: Presidio, 1988.

Mosley, Leonard. *Gideon Goes to War*. London, UK: Arthur Barked LTD, 1955.

Naylor, Sean. *Not a Good Day to Die: The Untold Story of Operation*

*Anaconda.* New York, NY: Berkley Trade, 2006.

Ribicoff. Abraham A. "Lessons and Conclusions." In *American Hostages in Iran,* edited by Paul H. Kreisberg, 374-395. New Haven, CT: Yale University Press, 1985.

Rooney, David. *Wingate and the Chindits. Redressing the Balance.* London, England: Cassell & Co Ltd., 1994.

Ryan, Paul B. *The Iranian Rescue Mission, Why it Failed.* Annapolis, MD: Naval Institute Press, 1985.

Shimko, Keith L. *The Iraq Wars and America's Military Revolution.* New York, NY: Cambridge University Press, 2010.

Slim, William. *Defeat Into Victory.* London, England: Cassell & Co Ltd., 1956.

Sykes, Christopher. *Orde Wingate.* London, England: Collins Clear-Type Press, 1959.

Thigpen, Jerry L. *The Praetorian STARShip: The untold story of the Combat* Talon. Maxwell AFB, AL: Air University Press, 2001.

Westenhoff, Charles M. *Military Airpower: A Revised Digest of Airpower Opinions and Thoughts.* Maxwell AFB, AL: Air University Press, 2007.

Wooldrige, Jeffrey M. *Introductory Econometrics: A Modern Approach.* Mason, OH: Thomson South-Western, 2003.

**Doctrinal Publications**

Air Force Doctrine Document (AFDD) 1. *Air Force Basic Doctrine.* October 2011.

Army Field Manual (FM) 1-02, Change 1. *Operational Terms and Graphics.* February 2010.

Army Tactics, Techniques, and Procedures (ATTP) 4-10. *Operational Contract Support Tactics, Techniques, and Procedures.* June 2011.

Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 1800.01D. *Officer Professional Military Education Policy (OPMEP), Change 1.* 15 September 2011.

Department of Defense (DOD). *The Armed Forces Officer.* January 2006.

Joint Publication (JP) 1. *Doctrine for the Armed Forces of the United States.* March 2013.

Joint Publication (JP) 1-02. *Department of Defense Dictionary of Military and Associated Terms.* March 2014.

Joint Publication (JP) 3-0. *Joint Operations.* 11 Aug 2011.

Joint Publication (JP) 3-30. *Command and Control of Joint Air Operations.* February 2014.

Joint Publication (JP) 3-31. *Command and Control for Joint Land Operations.* February 2014.

Joint Publication (JP) 3-32. *Command and Control for Joint Maritime Operations.* August 2013.

Joint Publication (JP) 3-33. *Joint Task Force Headquarters.* July 2012.

## Hearings/Reports

Goldwater-Nichols Department of Defense Reorganization Act of 1986. October 1986.

National Museum of the US Air Force. "Burma-India Operations." United States Army Air Forces Report, 1945. http://www.nationalmuseum.af. mil/factsheets/factsheet.asp?id=1768.

Turnbull, Grant. "Timeline of Events." in *Short War, Long Shadow: The Political and Military Legacies of the 2011 Libya Campaign,* edited by Adrian Johnson and Saqeb Mueen, vi-viii. London, UK: Royal United Services Institute for Defence and Security Studies, 2012.

United Nations Security Council, *Resolution 1970 (2011),* 26 February 2011, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1970(2011).

United Nations Security Council, *Resolution 1973 (2011),* 17 March 2011, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1973(2011).

US Air Force, AF/XOL. *Operation Anaconda: An Air Power Perspective.* Washington, DC: Headquarters USAF, 2005.

US Department of Defense. *Iran Hostage Rescue Mission Report.* Washington DC: Joint Chiefs of Staff, August 1980.

US House of Representatives. *Operation Odyssey Dawn and U.S. Military Operations in Libya: Hearings before the Committee on Armed Services,* 112th Cong., 1st sess., 2011.

## Site Content

AFRICOM. "Subordinate Commands." http://www.africom.mil/about-the-command/subordinate-commands (accessed 30 Dec 2013).

Brainy Quote. "Yogi Berra Quotes." http://www.brainyquote.com/quotes/authors/y/yogi_berra.html.

Merriam Webster, "Support," http://www.merriam-webster.com/dictionary/support (accessed 31 Dec 2013).

Navy Europe. "Joint Task Force: Operation ODYSSEY DAWN." http://www.naveur-navaf.navy.mil/odysseydawn/bios.html.

Special Operations Command. "SOF Truths." http://www.socom.mil/Pages/SOFTruths.aspx.

## USAF Oral History, Interviews, Transcripts, and Notes

Alison, Col John R., US Air Force. Address. Annual Luncheon of the

Associated Press, New York, NY, 24 April 1944.

Alison, Maj Gen John R. Transcript of U.S. Air Force Oral History Interview #1065. Interview by Lt Col John N. Dick, JR., 27 Jan 1977. USAF Historical Records Agency.

Alison, Maj Gen John R. Transcript of U.S. Air Force Oral History Interview #1121. Interview by Maj Scottie S. Thompson, 22 Apr 1979. USAF Historical Records Agency.

Cochran, Col Philip G. Transcript of U.S. Air Force Oral History Interview #876. Interview by Dr. James C. Hasdorff, October 20, 1975. USAF Historical Records Agency.

Notes. Arnold/Murray Green Collection. MS 33, box 47, #8.48. Colorado Springs, CO, USAFA McDermott Library, June 1944.

Woodward, Maj Gen Margaret (17th Air Force Commander), interview with author, 16 April 2014.

Wright, Stephen E. (The School of Advanced Air and Space Studies, Maxwell AFB), in discussion with the author, 17 April 2014.